

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful



NOVEMBER 1, 1940



Pinus Mugo Mughus

Spray Prevents Apple Drop
Proposals for Federal Inspection Tag
Oregon Association Annual Meeting
Excerpts from a Plantsman's Notebook

Editorial

WHOLESALE PRICE LISTS.

The articles in the preceding issue on the handling of mailing lists to which wholesale catalogues are sent and the attention given inquiries from persons not entitled to wholesale prices have brought comments from readers indicating that the subject has wider attention than may be appreciated.

Wholesale growers more and more recognize that they are not in position to handle small orders and make a profit on them, as are the retail mail-order firms. Hence there is a selfish reason for the former to return small orders that come from obviously retail buyers. There is the further good reason that, in doing so, the wholesaler protects his trade customers and makes it easier for them to obtain proper prices from the public.

But one wholesaler asks, if a copy of his price list by some chance has fallen into the hands of a retail buyer, is he not bound in some fashion to fill an order if it is in accordance with the terms in the catalogue? Except that it is an excuse to grab the bird in the hand, there should be no obligation. Assuming that the wholesaler restricts the mailing of his catalogue to persons and firms known to be in the trade, he cannot prevent a stray copy from getting into the hands of some retail buyer. Indeed, the eagle eyes and deft hands of some chisellers make it almost certain that someone will find a copy. Is the wholesaler therefore obliged to accommodate a buyer of such type? Obviously not. In justice, his money should be returned.

It might be observed that the wholesaler's case is no different from that of the trade paper publisher. Every day the latter sends back subscription remittances from persons outside the trade, and the Post Office Department has acknowledged he is justified in doing so, for the discussions in a trade paper and the wholesale prices in its columns were intended to be confined to the group for which the periodical is published. The value of the subscription list of this magazine, as of any other trade paper, is in direct proportion to the efforts of the pub-

lisher to restrict it properly. That is not to say that an occasional copy may not find its way into the hands of a retail buyer, who may pick it up in a nurseryman's office or obtain it under one pretext or another. The fact an inquirer mentions a trade paper by name is no guarantee that he is a subscriber, and that fact should be questioned if he is not obviously a wholesale buyer. There is no more obligation to deal with such an interloper than with a person who may have picked up a copy of your own wholesale catalogue.

The strict measures taken by some firms to defeat the efforts of those sharpshooters who seek to place retail orders at wholesale prices are to be commended. The general adoption of such strict methods is necessary to maintain trade standards.

ABOUT THOSE NAMES.

Just because the caption of the cover illustration this time is *Pinus mugu mughus*, please do not believe that we think much of it as a name, however well we may regard the plant. It used to be called *Pinus montana mughus*, but the botanists changed it.

The same thing applies to *Campsis tagliabuana* Madame Galen as the caption of the cover illustration October 15. *Bignonia* is the name by which most nurserymen have known the trumpet creeper, and we do not blame them for liking the sound of it, awkward as it is, better than the sound of *campsis*. But again the botanists changed it.

In a nurseryman's catalogue, particularly if directed to a local public, common names are easier handles by which to make sales, and perhaps the old botanical names are easier to employ than the new ones. The main point is that the public gets what it wants.

In a trade periodical, it is important that every reader know exactly what plant is being discussed, quite definitely and accurately. The only way to do this seems to be to use the name scientifically accepted at the present time. It is expected that Standardized Plant Names, to be the latest authority in horticultural nomenclature, will come from the press early in the

The Mirror of the Trade

new year. Effort is being made to have plant names, especially in the newer and better sorts discussed, checked with that authority for publication in this magazine.

For the sake of those readers who want to be strictly accurate, we attempt to give the latest in nomenclature. To those who prefer some other name, we only ask that you don't blame us for either christening the plants or for changing the spelling or the species or the genus. The botanists have done that. It bothers us, too!

ADVERTISING PIECES.

Frequently readers request suggestions or examples to help them prepare advertising pieces which will develop inquiries and orders for landscape planting. So comments are offered in this issue on two of the most outstanding among the relatively small number that come to the editor's desk.

There is no end to nursery catalogues, retail or wholesale, and the man who wants to issue his own can pick and choose his style for the printer's layout.

But the nurseryman or landscape contractor who seeks originality, who is not selling plants as so much merchandise, but rather the product of imagination, skill and experience, sets out on a less traveled road. The examples described in this issue show that a good job can be done in this form of advertising. Other examples have been mentioned before and—until such type of advertising is far commoner than at present—attention will be given it again.

So that suggestions to readers along this line may be more numerous, and so that we may not pass good ones by for not knowing of them, readers are invited to send the editor copies of the advertising pieces they prepare for their customers and prospects.

THE federal trade commission has turned its attention to the advertising of some nursery and seed firms, according to its announcement of stipulations made with respondent firms. It might be worth checking over your advertising to the public to see if any enthusiastic statements have been included which cannot be substantiated.

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They Come Back Again!

Note the advertisers—besides those who use this magazine the year around—whose seasonal offers appeared last year and come back again now.

The reason is they made profitable sales from their previous advertising and have confidence they will do so again.

Their confidence is well founded—for the subscription list of the magazine is increasing steadily, and advertisers reach more buyers this year for the same cost of space as before.

You have the same opportunity. You can be confident of getting results from advertising in the American Nurseryman because that's the reason advertisers come back again.

We'll be glad to tell you the most profitable way to use space to sell what you have to offer. Write us about it today—and make more sales this fall.

Spray Prevents Apple Drop

Application of Weak Solution of Synthetic Hormone to Orchard Trees Found Successful in Curtailing Pre-harvest Drops of Fruit—By Franklin D. Jones

Most nurserymen are familiar with the "June drop" of apples which is nature's way of thinning out the extra fruits in a cluster, so that only one or two apples will grow to maturity from the original cluster of flowers.

The later drop, also known as "pre-harvest drop", occurs during the last few days before harvest. At this critical period while waiting for the fruit to attain maximum color and flavor, a sudden drop of as much as fifty per cent may occur before the crop can be picked. The early-ripening varieties, such as Dutchess, Williams Red and Wealthy, are particularly bad droppers. McIntosh is notorious among the later apples for its tendency to drop suddenly. Among commercial growers, it is recognized that Jonathan, Delicious, Stayman and Rome Beauty may drop suddenly and heavily.

A simple method of controlling this drop has arisen through the researches of Gardner, Marth and Batjer last year at the federal bureau of plant industry's horticultural station at Beltsville, Md.

Briefly, the method consists in spraying the fruit a week or two before harvest with a water solution containing five to ten parts of the synthetic hormones, naphthaleneacetamide or naphthaleneacetic acid, per million parts of water. This spray stops the formation of the abscission layer, that layer of cells at the base of the apple stem where the stem joins the spore of the tree. The effect of the spray lasts from two to four weeks on all varieties but McIntosh. On McIntosh the effect lasts only seven to ten days, so that two sprayings may be necessary.

Of particular interest to nurserymen is the reason for Dr. Gardner's work on apples. Gardner and Marth found in 1937 that they could spray female holly blossoms with hormones in the spring so that they would form berries without the aid of pollen. These berries are technically known as parthenocarpic fruit. Later in rooting holly cuttings it was noted that the leaf stumps on hormone-treated

cuttings did not drop off as they would from untreated cuttings.

Thus far it has not been possible to set fruit on apple trees by spraying the blossoms with hormones. Furthermore, the spray has no effect on the June drop.

The two hormones, naphthaleneacetamide and naphthaleneacetic acid, are being used commercially, since they are far more effective than the other hormones, such as indoleacetic or indolebutyric acids. The use of the acid is restricted to woody plants, the amide being used on soft tissue plants because it does not twist or curl the leaves like the acid.

Other fruits respond to hormone spraying to prevent premature drop, but there is a variation in the extent of response. For example, peaches can be held on the tree only five or six days longer, while the effect of the spray on apricots lasts for four weeks or more.

Further experimental work is being carried out at some of the stations to determine the possibilities in holding ornamental fruits on the tree longer. The effect on leaves and flowers is extremely variable. Apple leaves are held on for only a few days longer. The petals of holly blossoms, however, stick to the plant as long as four to five months longer than they normally would.

The spray appears to be effective in preventing premature drop of gardenia buds. The effect on sweet peas is being investigated.

The past summer, commercial preparations have been put on the market which permit the grower to spray his fruit without the sensitive balances required with the pure chemicals. In one form, the hormone powder has been intimately mixed with a filler and such accessory substances as wetting agents, stickers and citric acid, which promote the penetration of the hormone into plant tissue.

One-half pound of the powder is mixed with 100 gallons of water in the spray tank for use. In this powder form, the hormone dissolves quickly in the spray tank and is ready to use within a few minutes. A con-

centrated solution of the naphthaleneacetic acid has also been offered, together with the accessory materials. One pint of this liquid is mixed with each 100 gallons of water in the spray tank.

Although much stress has been laid on the reduction of preharvest drop, the hormone spray has other and unlooked-for benefits. Because the apples stick tighter, fewer apples are knocked off accidentally by the pickers and this saving alone justifies the expenditure for the spray.

The season of 1940 was cool toward the end, so that the apple crop had much higher color than usual. But last year's experiences showed that in a normal season it is necessary to hold the apples on the tree longer than usual to obtain high color. Good color means fuller maturity and that in turn means better storage quality and a higher price for the crop.

In windstorms last year the effect of the hormone spray was put to severe test. Wherever tried, in Missouri, Maryland, Virginia or New York state, the wind loss from sprayed trees was less than half that from unsprayed trees.

It was possible to get Wealthy apples this past summer so red that experienced fruit men were unable to identify the variety without close inspection. The reduction of loss on the summer varieties, such as Dutchess and Wealthy, may mean the popularizing of the summer varieties again and help to restore them to their old-time popularity.

The experiment stations in every state, and also several in Canada, are conducting tests of the commercial preparations as well as the pure chemicals to determine what variations occur with climate and locality. These will be reported at the winter meetings of the horticultural societies and should be of considerable interest.

Since every meeting last winter brought up the question of the cost of these sprays, it seems fitting to mention that the commercial preparations represent a cost per spray gallon from 2½ cents to less than a cent

per spray gallon, depending on the concentration used.

Gardner and his group advised that approximately one gallon of spray is needed for each year of the tree's age. With good commercial spray rigs this amount can be shaded slightly, although any great reduction results in decreasing effectiveness of the spray. Since the extension service for New York state recommended sunning of McIntosh apples on the ground to attain color at an estimated cost of 10 cents per bushel, the new hormone spray, with its cost of 2 cents or less per bushel to accomplish the same result, seems quite reasonable.

To the writer, one effect of the hormone spray has seemed consistent and remarkable. On many varieties, the sprayed apples are distinctly juicier and therefore better flavored. It seems likely that this new use of hormones will have application on many plants and with unlooked-for results as research progresses.

EFFECT ON CROTCH ANGLES.

In training and pruning fruit trees it is a matter of common observation that a scaffold branch forming a narrow angle at the point of union with the tree trunk is structurally weak. This is due to inclusion of bark in the narrow crotch between the branch and the trunk and to failure of contiguous tissues of the trunk and branch to unite and grow together. In a wide-angled branch a woody structure forms in the crotch, uniting crotch tissues of the branch with adjacent tissues of the trunk. Such branches have great strength and are capable of supporting heavy crops of fruit without breaking down, while the narrow-angled type of branch is in danger of breaking at the crotch under the weight of even a moderate crop of fruit or as a result of action of the elements. In many orchards a large percentage of scaffold branches are of the acute-angled type, and such orchards not infrequently suffer serious, permanent damage as a result of breakdown of the trees.

A further objectionable feature is that the tissues of narrow-angled crotches are more susceptible to winter injury than are the corresponding tissues in crotches formed by wide-angled branches.

The effect of a plant growth substance on crotch angles in young apple trees was discussed by Leif Verner, of the University of Idaho, before the American Society of Horticultural Science, and his remarks have been published by the Idaho agricultural experiment station, Moscow, Idaho, as research paper 179. His summary concluded:

"A study of factors that influence the magnitude of crotch angles in young Delicious apple trees planted as 1-year-old nursery whips showed that injury to the phloem immediately above the dormant bud, as by

permanently fixed and neither girdling nor auxin treatment would alter it.

"By a simple technique, indolebutyric acid was permitted to diffuse slowly and over a long period into the cut, terminal portions of whips that had been headed back to about thirty inches while still dormant. Under this treatment abnormally wide crotch angles were developed throughout the entire tree."

PYRACANTHA COCCINEA.

For many years it was believed that firethorns were not hardy in the middle west north of Oklahoma and Arkansas. However, a few years ago a specimen of *Pyracantha coccinea* was found growing not far from Kansas City where it had been established for at least ten years. Plants propagated from this specimen have proved hardy in northern Kansas, which moves the known limits of hardiness several hundred miles north.

In the south, *Pyracantha coccinea* is considered a broad-leaved evergreen, but in its northern limits it is deciduous. Plants growing in sheltered locations may retain their foliage until well into the winter. During the severe winters the newest growth may be frozen back, but a little shearing will restore the beauty of the plant. It is naturally informal in appearance and it is best not to attempt to formalize it. However, it responds readily to shearing, which helps to make it compact. Established plants grow rapidly.

In autumn, *Pyracantha coccinea* puts on a gorgeous show, with its large clusters of brilliant orange berries distributed over the entire plant. Even young plants, not more than 2 or 3 years old, will fruit heavily.

Pyracanthas cannot successfully be handled with bare roots, and even the customary baling and burlapping does not always give satisfactory results. The best practice is to grow them in pots, cans or tubs and ship in the original containers.

A JOINT meeting of the Superior and Central California nurserymen's associations was held at Stockton October 16 at the Hotel Clark. Many from Sacramento made the trip in a special bus taken so that the group might be together en route.



Pyracantha Coccinea, One-half Natural Size.

girdling, invariably resulted in development of an abnormally narrow-angled branch from that bud. This, together with certain other observations, led to the conclusion that wide crotch angles result from the action of a plant hormone formed in the growing points of the young tree and passed downward through the phloem to buds and developing shoots below, where its action inclines the direction of growth of the shoot toward a horizontal position.

"When indolebutyric acid in lanolin paste was applied to the upper surface of the basal internode of a young shoot when this internode still was elongating a marked increase in magnitude of the angle formed by the trunk and the shoot soon was observed. After elongation of the basal portion of the shoot had ceased and the tissues of this region had assumed a woody nature, the crotch angle was

Proposals for Federal Inspection Tag

Recent Developments in the Trend Toward Unification of State Nursery Stock Laws, Quarantine and Certification, Presented at Oregon Meeting—By Frank McKennon, Chief of Division of Plant Industry

In a discussion of recent developments in the trend toward unification of nursery stock laws, quarantine and certification, without doubt the main theme will revolve about the various proposals for a federal inspection tag in some form.

I recall that at a meeting of the American Association of Economic Entomologists at Richmond, Va., December 29, 1938, three different papers suggested, in one way or another, a federal tag. And earlier this year, T. L. Aamodt, assistant state entomologist of Minnesota, in attendance at the meeting of the Central Plant Board, proposed another plan, in his paper, "A Possible Substitute for Federalization of State Nursery Systems."

Mr. Aamodt would set his plan up under surveillance and recommendation of a policy committee on standardization, to consist of seven members, with the chairman to be the chairman of the National Plant Board. Other members would be one from each regional plant board, the chief of the federal bureau of entomology and plant quarantine or the chief of the domestic plant quarantine of that bureau, and the secretary of the American Association of Nurserymen. This policy committee would set up standards for inspection and certification of nursery stock and would propose a National Plant Board tag for nursery inspectors' use. He further suggested that states be induced, if not required, to establish civil service to cover their inspectors, and that civil service be a requisite to a federal grant, which was also a part of his proposal. Needless to say, this plan was torn to pieces pretty generally in the discussion which followed its presentation at the Central Plant Board meeting.

I may say at the outset that many states and nurserymen feel that any effort to introduce a federal tag will result in too much red tape and too much federal domination. In other words, they feel that the states should hold on to their individual prerogatives.

To be effective, any uniform in-

spection tag must be authorized by a central agency, and unless that central agency is a federal agency, I personally don't see what it could be.

The basis of the whole idea is to set up a program of inspection which involves qualification of inspectors and uniform procedure in making inspections such that the receiving states will have confidence in the nursery certifications accompanying shipments.

Most states, it seems to me, do not and will not want to give up their authority to inspect and reject at the point of destination or the terminal point. There might, however, be something worked out that would ensure enough confidence in the original certification that stock would not be rejected on grounds of reason to presume that it was infected or infested.

I know from reports received from some of the plant board meetings, from state officials and from nurserymen, that there is a feeling within these memberships that it would be better to go through the slow evolution of trade barrier elimination and arrive at uniformity of inspection and certification through the leadership of the regional plant boards. We must recognize that in some sections, and notably in our own, a great deal has been done already along these lines.

Certain states, as you know, have passed laws in the past two or three years providing for reciprocal agreements with other states in regard to license fees for out-of-state nurserymen, bonds and duplicate tags and even other restrictions which have been an annoyance and a barrier to interstate movement of nursery stock.

I feel that here in Oregon we should keep our own inspection service, maintaining a qualified personnel and having sufficient funds to give adequate inspection so that we might continue to deserve the confidence of other states.

The real responsibility is upon the shoulders of you nurserymen to see that you do not ship nursery stock that is infested or infected. Under

the present arrangement it is impossible for your department to inspect every shipment of nursery stock that leaves Oregon, and we must recognize that it is possible for stock to become infected and infested between the time inspections are made and the time shipments may be made from the state. It is in a large measure your responsibility to see that healthy stock is maintained in healthy condition.

I believe a certain amount of federal supervision might be desirable, but this would require Congressional action, an enabling act to put it into effect, and might lead to more domination by a federal bureau than the states would be willing to accept. Pending a working plan satisfactory to all or certain states, I believe the regional and national plant boards have had a definite and constructive influence in raising the standards of inspection and in creating confidence among the states in the integrity of inspection and certification. Furthermore, the regional and national boards have been instrumental in revoking or causing to be revoked objectionable licenses, bonding and other features which now make interstate trade in nursery stock difficult in some parts of the country.

The American Association of Nurserymen, at its last meeting in New York, had proposed to its membership by one of its own committees a plan for use of federal tags by state inspection services. This proposal contained ten points, as follows:

1. The conditions here set forth shall not be compulsory on any state, nurseryman, or group of nurserymen.
2. The committee shall be appointed by the bureau of entomology and plant quarantine, with the head of the bureau to be the chairman of the committee and the membership to include two representatives of the bureau, two state officials and two representatives of the American Association of Nurserymen. This committee shall set up standards for nursery inspection. Expense and salaries shall be paid by the respective groups.
3. The United States shall be divided into regions similar to the existing regional plant boards.
4. A supervisor with adequate assistants shall be appointed in each region by the bureau of entomology and plant quarantine, with the supervisor to be paid for

by federal funds and the state assistants to be paid from state funds.

5. All present entomologists and nursery inspectors shall be continued and within eighteen months after the state adopts the committee's standards, an examination shall be given, on basis of which they shall be continued or dropped from their work. When vacancies occur, new inspectors shall pass examinations satisfactory to the committee and after they have been employed for a six months' probationary period.

7. Federal and state inspectors will certify nursery stock only as being apparently free of pest or disease.

(This foregoing point is one reason why states do not want to accept as final the proposal for a federal tag.)

8. If federal supervisor and assistants determine that a state inspector is complying with standards set up by the committee, then each nursery passed by the state inspector and the federal committee will be allowed use of the federal tag and the nursery will be permitted to move nursery stock into any state without fees or bonds.

9. Tags to be furnished for distribution by the federal government.

10. Nurseries not meeting federal standards can still move stock by complying with federal and state regulations.

There is some feeling, as might be expected from the tenth phase of the proposal, that the stock of states not meeting the requirements of the federal committee would be discriminated against by other states. In other words, some hold that, while the plan would not be compulsory directly, it would be so in effect.

Still another plan, which suggests federal grants or aid if certain regulations are carried out, has been proposed to the nursery industry. Under this plan the cost of inspection would be paid for partly by federal funds, but presumably the federal government would not have authority in the inspection work and the individual state would make an accounting to the government at the end of each year of monies spent in inspection.

The whole question seems so complicated and it would probably be so difficult to get the states all to agree to these plans that I feel safe in saying it would take several years before any one plan could be put into effect.

As I see it, there is no immediate possibility of a national plan under supervision of the federal bureau or a national committee which involves appropriation of national funds being put into effect in the near future.

THE history of the Korean hybrid chrysanthemums is the subject of the leading article in the October Journal of the New York Botanical Garden, written by Carol H. Woodward and Natalie Gomez.

FREIGHT REDUCTIONS.

Charles Sizemore, A. A. N. traffic manager, states that, effective October 10, 1940, trees or nursery stock in bales or bundles completely wrapped or in barrels, boxes or crates is subject to third-class rates. The previous rate on bundles completely wrapped was second-class, and on bundles of nursery stock tops tied, roots boxed or bundled, the previous rate was first-class. This third-class rating applied throughout the country in every rate territory. In the western trunk line territory and southwestern freight bureau territory, the rate on the foregoing classifications was lowered to fourth-class. Other freight adjustments were made recently in



Peter J. Cascio.

these two territories. Shippers of l.c.l. nursery stock should consult their local freight agent for information.

National motor freight classification, also effective October 10, 1940, reduced from second to third-class nursery stock in bundles, tops tied, roots boxed or wrapped, or in bales or bundles completely wrapped. This is the same rate as for boxes or crates.

PERSONAL PROPERTY TAX.

Assessment of growing stock in the nursery as personal property is a perennial problem in states where specific legislative exemption has not been obtained. The matter has been brought to the fore again by an assessment levied on a New Jersey firm, reported in the preceding issue. So important is the case regarded that the New Jersey Association of Nurs-

erymen has authorized a committee to combat the assessment levied against its member. The reason is that success of the levy will not only cost the one member dear, but probably will cause higher personal property taxes against other members later.

This tax problem has arisen in other localities from time to time. In some cases, assessors have not understood the hazards to which nursery crops have been exposed or the long time which may be required to bring trees to salable sizes, but explanation has drawn a fairer assessment. In other states attempt has been made, sometimes successfully, to obtain legislative action to include nursery crops with farm crops as not assessable for the personal property tax. But where there is no such exemption, the growing trend toward increased taxes is raising the problem again.

AGAIN A PRESIDENT.

Titles come easily these days to Peter J. Cascio, who was elected president of the West Hartford chamber of commerce at its annual banquet, October 23. Last July he was re-elected president of the National Landscape Nurserymen's Association, at the A. A. N. convention at New York city. He also is the recording secretary of the Connecticut Horticultural Society, vice-president of the Reserve Officers' Association and secretary-treasurer of the Connecticut Nurserymen's Association. Those who have been familiar with his work in the last-named capacity know why his services are in demand by organizations of which he is a member.

Peter Cascio received his early training when he worked as a boy for a Willimantic nurseryman. Then he obtained a bachelor of science degree from Massachusetts State College, studying horticulture and allied subjects. He studied at Cornell and the University of Southern California and worked for several firms in the trade until starting for himself in 1934. Since then he has operated the Fernhill Nursery, 2600 Abany avenue, West Hartford, Conn. On this page is his recent portrait by Bachrach.

THE annual chrysanthemum field days were held October 19 and 20 by Henry A. Dreer, Inc., at the nurseries at Riverton, N. J.

Oregon Association Annual Meeting

Discussions by Staff of Oregon State College and Reports of Association Officers and Committees Occupy Interesting Sessions of One-day Meeting at Portland

Chief business transacted during the annual fall meeting of the Oregon Association of Nurserymen, held October 16 at the Heathman hotel, Portland, was the election of officers for the coming year. Wayne E. McGill, of A. McGill & Son, was elected president, and A. M. Doerner, of Doty & Doerner, Inc., vice-president. J. E. French, who has served the association ably for the past few years, was reelected secretary, and Melvin Moller was elected treasurer.

The morning session of the one-day meeting was given over to the reports of officers and committees and reports from the advisory board members on the different branches of the industry.

Prof. G. R. Hyslop and other members of the staff of Oregon State College took charge of the afternoon discussion of "Important Problems of the Nursery Industry." Two other afternoon speakers were J. D. Mickle, director of the state department of agriculture, and Frank McKennon, chief of the division of plant industry of that department.

Officers Report.

In his address, Fred J. Borsch, retiring president, urged the nurserymen to "watch for the red light, which means danger ahead!" With world conditions as they are, nurserymen should work in closer cooperation and make an effort to be prepared for whatever may happen. "It is better to have a plan outlined and be prepared for the worst," he said, "than to be caught short and suffer great losses before we can get our forces organized."

Mr. Borsch also called attention to the many new homes being built in that section of the country, which call for landscaping.

As treasurer of the association, A. M. Doerner reported that the response from the nurserymen of the state had been generous during the past two years.

Quarantine Committee.

Wayne McGill reported for the quarantine committee. Nothing has been done about quarantine 37 during the year, as the war has solved

that for the time being. The changes made affecting the bulb industry have been practically nullified by the war. Mr. McGill said that possibly one of the greatest helps to eliminate quarantines and permit easier movement of nursery stock from state to state is methyl bromide fumigation, discussed later by the staff of the experiment station. He also told of a movement under way to have each state segregate the injurious pests from the common pests and list them in the order of importance. It is



Wayne McGill.

hoped that this work will greatly clarify the quarantine situation in the future.

The report of the transportation committee was also given by Wayne McGill, who stated that a recommendation for a change of third-class stock to fourth-class on l.c.l. shipments had been made. The main thing in mind today, however, he said, is the new ruling by the Interstate Commerce Commission which brings nursery trucks into the industrial class. He introduced a representative of the bureau of motor carriers, who clarified this new regulation for the nurserymen. The latter stated that the purpose of the regulations was the safety of everyone on the highway. He said the main thing to be learned from the driver's log is that he does not drive more than ten hours per day or sixty hours per week.

Avery H. Steinmetz, president of the American Association of Nurserymen, reported on recent developments in the A. A. N., which center around one particular program, coordination of national, regional and state associations.

A. A. N. President's Address.

Mr. Steinmetz cited some examples of what united effort can accomplish on the part of a state organization.

One problem of importance which calls for the coöperation of state associations with the national organization is that of industry defense. This involves the task of keeping the nursery business normal at a time when economic and social conditions are far from normal. One phase of this work will probably be a promotional program to keep people interested in their own gardens, public gardens and parks.

"Most of us are probably thinking these days that the demand for our product for the next year or two is practically assured," said President Steinmetz, "but we are also probably wondering just what will happen when the federal building boom is discontinued. We can still remember that nurserymen all over the country sustained heavy losses due to overproduction during the depression period; so it certainly is not too soon to be giving consideration to what might be called orderly production and systematic distribution of our product during the normal years that are to come."

Other problems on which the American Association of Nurserymen is enlisting the support of the state associations are the following: Trade barriers, efforts to tax growing nursery stock, uniform lien laws, uniform trade practices, uniform state laws covering social security taxes, proper distribution of wholesale price lists and the relationship of employers and employees on the basis of exemption from social security taxes and wages and hours regulations.

Bureau of Nursery Service.

The report of the bureau of nursery service, as given by John S.

Wieman, superintendent, comprised a general outline of the work being done by that bureau. From a statistical angle, the nursery industry in Oregon appears to be in a healthy condition. License data for the past two years show an increase of thirty-nine licensed nurserymen.

Future production and marketing should have the attention of nurserymen, said Mr. Wieman, and they should give serious consideration to such items as a spray program, budwood selection and certification, an isolation area for new stocks, the weeding out of weak varieties and soil rotation.

A large amount of time is being spent by the bureau on pest control, sprays, cultural practices, etc.

A brief talk on "The Business Outlook for Pacific Coast Nurserymen" was given by Walter Dimm, of Sweeney, Straub & Dimm, Portland. Some comments on eastern business conditions were made by C. B. Miller, of the Milton Nursery Co., Milton.

Reports on Crop Outlooks.

Reports of advisory board members held the next spot on the morning program.

Melvin Surface reported on ornamentals, saying that the outlook for evergreens is good at the present time, but care should be taken not to overplant in the future.

Alpines and perennials were discussed by Fred Borsch, who stressed the importance of buying only the best and newest varieties.

A more nearly balanced supply and selection of varieties of fruit trees were indicated by Wayne Melott in his report on that branch of the industry. The supply of nut trees is about normal, and undoubtedly all quality stock will clean up.

Arthur Bowman reported on narcissus, lily and iris bulbs, reporting a more hopeful outlook in the immediate future.

In his report on fruit tree seedlings, Wayne McGill asked that some work be done by the experiment station on the defoliation of apple and pear seedlings.

The report of the florists' group, given by O. E. Panzer, Jr., showed that general business conditions are improved.

College Staff Work.

A group luncheon was held at the Heathman hotel. At the afternoon

session, immediately afterward, J. D. Mickle, talked briefly and expressed the willingness of the state department of agriculture to cooperate on all matters.

"Important Problems of the Industry" was scheduled to be discussed by Dean W. A. Schoenfeld and the staff of the Oregon State College, but Prof. G. R. Hyslop, of the farm crops department, took charge because of the illness of Dean Schoenfeld.

Professor Hyslop touched briefly on the problem of overplanting and the certification of bulbous iris before introducing other members of the staff.

Kenneth Gray, entomologist, discussed the use of methyl bromide as a fumigant for the control of willow and poplar borer. "We are not in a position to make a definite recommendation yet," he said, "as we don't know what the effect will be on the plant later." The best control for the willow borer seems to be four pounds of methyl bromide to 1,000 cubic feet for eight hours with temperature around 65 to 68 degrees, although no effort has been made to control the temperature. Another thing the workers cannot be sure of is what the minimum dosage should be in order to kill the eggs.

Dr. John A. Milbrath discussed heat cankers, which form on young propagating stock near the soil line because of intense surface soil temperatures. To avoid the formation of these cankers, through which secondary organisms often enter a plant and cause it to die, Dr. Milbrath suggested not planting on a slope where the sun beats down directly on the plants, but planting where the stock can get some shade during the hot part of the day. He also suggested putting up furrows to shade the base of the plants or planting stock closely enough so that the base is shaded.

Dr. Milbrath also discussed the work done by him and Prof. Henry Hartman in preventing the defoliation of holly trees. The spray used for this purpose was a naphthalene-acetic acid, and effects will last about ten days or two weeks. Their idea is to spray it on holly before it is packed for shipment, as there is no residue problem. The commercial product called Fruitone is the same as that used by Dr. Milbrath in his experiment.

The work of defoliating rose plants by the use of ethylene gas was reviewed by Prof. Henry Hartman. Most fruits produce this gas, but oranges and grapes do not produce it except under certain specific conditions.

Frank McKennon discussed the unification of regulations governing nursery stock certification and the enforcement of state quarantines. On another page is a summary of the statements prepared by Mr. McKennon.

W. L. Fulmer, president of the Washington State Nurserymen's Association, who recently returned from a trip of several weeks spent in visiting nurserymen throughout the east and middle west, responded to the chair's request for remarks.

Another guest was W. D. Courtney, nematologist, of the United States Department of Agriculture, Sumner, Wash., who presented a short discussion of root-knot nematode. Experiments he has made indicate that thirty minutes in water of 120 degrees is sufficient to kill nematode infestations on peonies. The question arises whether the plants will stand that treatment, and Mr. Courtney reported that next year he hopes he will have more information. In nematode infestation sanitation is of primary importance.

GRAPE PRODUCTION.

Of the thirty-seven leading grape-producing counties in the country, the majority are in California, with Fresno county the outstanding, according to the last agricultural census of the United States Department of Commerce. Fresno county produces nearly one-third of the nation's crop and has nearly twenty-five per cent of the total number of vines in the country. The San Joaquin and Sacramento valleys comprise the leading grape-producing areas. Grapes produced in these areas include raisin, table and juice or wine varieties.

The principal eastern grape-producing regions extend along the southern shore of Lake Erie, with Chautauqua county, N. Y., fifth in the United States with the number of vines and first among the counties east of the Rocky mountains. Berrien and Van Buren counties in southern Michigan are also outstanding grape-producing counties.

Excerpts from a Plantsman's Notebook

Further Notes on the Culture, Propagation and Uses of Many Kinds of Plants Given Garden Trial in Years Past—By C. W. Wood

Ruellia.

(October 5, 1940.) Again this year I have been favorably impressed with the behavior and performance of the long-tubed or hairy ruellia, *R. ciliosa*. It started in June to produce its large, petunia-like flowers of silvered lavender-purple and kept it up well into September. And no doubt blooms could be found there yet if the plants were examined. A long blooming period like that is a good recommendation for any plant. Add to it an amiable disposition, which allows the plant to thrive in any sunny, well drained situation and, it seems to me, that is a plant to be cherished.

I was showing a horticulturist a large planting of ruellia last August—a planting that I thought would excite the admiration of any gardener—and this was his reaction: "It is a good color and the long blooming habit is much in its favor, but some of the plants have a rusty look." That remark is set down here, not so much to show that some people would find fault with their grandmother who left them a million-dollar inheritance because it was not two million, as to point out the fact that few, if any, plants are perfect. Perhaps not five plants that I grow can go through the entire season without attention and still present a spick-and-span appearance. Some leaves die; seed pods or heads form and have to be removed. By August 1 seed capsules on ruellia have turned brown and perhaps some leaves have become discolored and should be removed. Otherwise, it is a slightly plant throughout the summer.

Ruellia ciliosa grows in dry situations from New Jersey westward to Nebraska, commencing to get plentiful on the westward journey in Pennsylvania, according to the books, and extends its range southward to Florida and Texas. The genus is one of the few hardy representatives of the great *acanthus* family that have wandered away from their tropical home into the United States. Our present plant may grow as tall as fifteen or eighteen inches in fertile soil, while in our light sand here in northern Michigan it rarely exceeds a foot. It is indestructible so far as drought is concerned, and mate-

rial from the northern part of its range has been able to stand our coldest winters even in the most exposed situations. Propagation is easily accomplished by sowing seeds outdoors in autumn or early spring and by division of old clumps, separating each crown with a root attached.

Two varieties, *ambigua* and *parviflora*, have been described by botanists, but, being unacquainted with the plants, I can say nothing about their merits. However, another species, *R. strepens*, from quite the same area as the first, has not a little garden value, although it falls short when compared with *ciliosa*, at least in my estimation. In the first place, it is taller and more leafy, with somewhat smaller flowers of deeper shade, perhaps best described as blue-purple. In the rich soil that it loves it will reach thirty inches in height; in a poorer medium it may not exceed half that, and it always requires more moisture than *ciliosa* thrives on. The manuals say that it blooms from July until September; here it rarely covers more than a month or six weeks, usually commencing in June. Its variety *cleistantha* is unknown to me, as is *R. pedunculata*, a woodland species, found from Missouri southward.

Lythrum Salicaria The Beacon.

(September 11, 1940.) For folks who like flowers of a bold shade, the purple loosestrife has much to offer. Unfortunately, many gardeners balk at accepting the magenta or near magenta of many forms of the species that are found in nurseries. An advance was made with the introduction of Perry's variety of *L. Salicaria roseum*, whose cherry-red flowers were acceptable to many magenta haters, and no doubt another forward step has been taken in variety The Beacon. I have not grown the plant and speak only from brief observation made in a nursery last summer, when its clear carmine color, without the objectionable purple tinge of many kinds, made a favorable impression.

After observing loosestrifes in gardens, you will agree with me, I believe, that not many gardeners get the best out of their plants. They have been

told about its adaptability to a wide range of growing conditions, such as poor or rich and dry or moist soil, and have taken the statement too literally. It is a versatile plant, to be sure, but it is expecting too much of a moisture lover to ask it to put forward its best face in a poor, dry spot. Experience teaches that a steady production of flowers from July until frost, on stately plants, cannot be expected unless loosestrifes are in a rich soil and have an abundance of moisture.

Linum Flavum.

(July 14, 1938.) That cheerful weed, *Linum perenne*, is known to most gardeners and is to be found in most gardens. It is astonishing, then, that more curiosity has not been shown by gardeners in searching for other members of the genus. A little curiosity, followed by a little searching, would show them *L. flavum*, a widely distributed plant from central Europe to the Caucasus, a really good member of the clan, with golden-yellow flax flowers from June until late August, or sometimes September when conditions are right. The erect, foot-tall stems spring from a woody base, which sometimes suffers from the extreme cold of this northern country; it is, consequently, a good plan to give it a sheltered position in the north. Here is a really good summer bloomer that would surely find a ready market if it were offered. It is easily propagated from seeds.

Campanula Mirabilis.

(October 11, 1940.) I write these notes with tongue in cheek and for the obvious reason that I am not sure that I know what I am writing about. All of a dozen distinct plants have been in this garden under label of *Campanula mirabilis*, a few of which have come close enough to the botanists' description of that species, at least in my uncritical eye, to seem to me to be entitled to the name, yet always in the final analysis there was something lacking in their make-up. A few years ago, however, one came along that seems to fit all the requirements, including coarsely toothed, rather spatulate leaves and winged

petioles, which I am going to discuss in a few sentences.

The books generally refer to the plant as being biennial, but some authors, including Bailey, add the term "or short-lived perennial." The latter is correct, I believe, for I have never had a plant bloom in less than four years, which definitely puts it out of the biennial class. Unfortunately, it is strictly monocarpic, as it has behaved here, and that will keep it out of the popular list so long as gardeners are impatient and indifferent. It is, I imagine, strictly an enthusiasts' plant at this stage of our development. But it is a most beautiful one, deserving all the care needed to bring it to the spectacular climax of its single flowering period.

That it is not easy to cultivate in this climate has to be admitted. And that is another factor that keeps it in the fanciers' class. Here it has done best in a soil made up of gravel, a little loam and leaf mold, watered from below. If watering is carefully done, it has given best results in full sun, but dappled shade during the hottest part of the day is beneficial if its moisture needs have to be neglected. In more favorable climates, it would no doubt make a splendid ornament for a south wall. The reward for one's work comes in the form of a spire (perhaps a cone is more accurately descriptive) of pale blue-purple (a color crank would probably call it pale heliotrope) bells, as much as two inches across. The books say that this spire or cone should be upright to the height of a foot or more; in practice here the weight of its profusion of large bells causes the flower stem to bend down almost to the ground, presenting a graceful curved column of flowers. That character is the one on which I based the suggestion that the plant would make an attractive wall ornament.

A monocarp of its character has to be grown from seeds. Unfortunately, it has set few seeds here so far, and that adds another complication to its culture. Equally unfortunate is the fact that seeds in trade channels are, according to my experience, often far from mirabilis. The spectacular beauty of the true plant will, however, well pay for the search and for the care needed to grow the plants.

Stellaria Graminea.

(March 8, 1932.) If the stellarias were less invasive, they would no

doubt find more favor with gardeners. Even so, several species, including *S. graminea*, fill the need for a year-around ground cover in sun or light shade and especially in sterile spots where one ordinarily encounters trouble. The one mentioned is a rapid spreader, throwing out prostrate stems in all directions which may cover a space of four or five square feet in a single season. Its foliage is always presentable, light green and dense, and the plant blooms (fairly large, white stars) throughout most of the open season. It is readily propagated from cuttings at any season.

Grammanthes Dichotoma.

(October 1, 1940.) The letter flower, so named because a letter "V" appears, in some of its forms, on the flowers in a darker shade than their general color, offers the commercial grower an unusual item in annuals. The present popularity of succulents, among which *grammanthes* is rightly placed, should add to its sales possibilities. It has other recommendations, too, including a disposition that makes it contented with the hottest and driest situations and a quite long flowering period, during which it displays its bright orange blooms on 3-inch stems. The plant has possibilities in many parts of the garden, as in the rock garden, where it supplies summer color as well as pleasing foliage, and as an edging plant. In fact, it has possibilities in the latter role far beyond its present usage. It is a half-hardy annual, best started indoors and transplanted to the open after heavy frosts have passed.

Saxifraga Cymbalaria.

(October 1, 1940.) The mention of the annual in the next preceding paragraph reminds me that an annual saxifrage, *S. cymbalaria*, is a plant of much value and one that is rarely seen. Those two factors, beauty and rareness, it seems to me, should make it a good item for the neighborhood grower. Your experience with saxifrages, during which you lost much sleep and acquired gray hairs because of the waywardness of many of the difficult perennial species, may have prejudiced you against the entire clan. You can rest assured, however, that *S. cymbalaria* will give you little trouble if you have a moist spot for it. The plant is of somewhat trailing growth, with ivylike, trilobed leaves and yellow flowers during most of the

summer. It grows readily from seeds and transplants without losses if grown in small pots.

Aphyllanthes Monspelienis.

(July 25, 1934.) If you find unusual plants of easy culture useful in attracting customers to your nursery, you should give *Aphyllanthes monspeliensis* a trial. It is not showy in the usual sense of that term, but it has many attractive traits, including tufts of glaucous, gray, rushlike foliage to a foot in height and small, blue fairies at the ends of the stems. The plants are for thoroughly drained soil, preferably on the poor side, and for sunny situations. That means usefulness in many parts of the garden. Being a native of the warm Mediterranean regions, it is not fully hardy in the extreme north, though it usually goes through our winters here in protected spots. It seems to be in the class of the California *sisyrinchiums* so far as hardiness is concerned. Propagation is by seeds sown outdoors in autumn.

Hieracium Bombycinum.

(October 15, 1940.) One is apt to get into trouble if he goes blindly into the hawkweeds. Well do I remember when I first let grim-the-collier, *H. aurantiacum*, into a garden of mine. I was unmindful of its ambition to cover the earth, and it had spread for feet, under rocks and other plants, before I noticed it. It took several years of vigilance before it was finally eradicated. Other gardeners have had the same experience, no doubt, for it is not easy to interest them in a hawkweed, especially if the plant is given its common name. Take one of the restrained growers, however, and omit the name "hawkweed" from your literature and sales talk, and you will find a different ending to the story.

I have had several of these restrained growers, but none more pleasing in all its ways than *H. bombycinum*. Seven-year-old plants now in the garden do not exceed seven inches in diameter, and they have never self-sowed. It makes a low mat of silky, gray leaves, which would be reason enough in itself for growing the plant, even if it never bloomed. But a generous offering of soft gold heads, on 6-inch stems, in late spring and early summer makes it an acceptable ornament in the choicest company of the rock garden or low border. It is easily propagated from seeds and thrives in well drained, light soil in sun.

Christmas Business for Nurserymen

How Those Who Wish to Develop Profitable Sales in Dull Midwinter Season May Find Opportunity in Holiday Greens—By Clifford Corliss

The automobile manufacturers may bemoan their seasonal industry; the merchants may wail about the same evil in their business, but if you want to hear seasonal business given a real fancy going over with a grand and expert embellishment of tearful curses, go to the nurseryman. Any one of us is able and willing at any time to go into the woeful details of a year's sales crowded into about fifteen weeks, no business from November 1 until March 1, with taxes, maintenance and a slashed but still staggering pay roll, and no income with which to meet them. Along about February 1 to the Shylocks we go to trade blood for enough money to continue until the stream of customers' cash again begins to flow. It's a discouraging story, and we all know it by heart.

We fellows out on Cape Ann aren't any better or any worse nurserymen than the rest of the brotherhood, but with a new branch nursery and a lot of improvements to keep going, we had to do some hard thinking last autumn, perhaps a little harder than some of the boys who were holed up pretty snugly for the winter, in order to devise ways and means of keeping the proverbial water down to about the vicinity of our necks.

We hit upon something, not new, but obviously with certain possibilities of being broadened into a lucrative field for ambitious nurserymen willing to dig for a spring of hard cash in this seasonal midwinter dry spell.

We knew that the holy duty of the nurseryman is to deal in living plants, but upon looking around we found, here and there, a fellow who would desert the code temporarily during the holiday season to sneak out and pull in a few Christmas trees and toss together a wreath or two with usually some profit to himself and much satisfaction to his customers.

We found few nurserymen really going after the business in the wholehearted, energetic manner necessary to do a real job of it. On the other hand, everywhere we found gasoline

filling station attendants, grocery-men, hardware merchants, farmers and all manner of men of no special calling going after the constantly increasing Christmas greens business hammer and tongs.

After hashing the matter over thoroughly, we decided to have a try at the business and went into it rather cautiously and in a moderate manner. It didn't follow that the result was a howling financial success, not by any means, but we did take in a considerable amount of the neighbors' cash. They were satisfied and so were we, and we do believe that after we learn the ins and outs of the Christmas business a little better, it will be a quite profitable midwinter line.

We did not go into all the lines of Christmas greens, but concentrated on wreaths and roping of our own making and on Christmas trees. We tried to have our product of the finest possible quality.

In tagging all of our trees and decorative material to show they were legitimately purchased, we co-operated with the state department of agriculture and the garden clubs, which have done a great deal toward sponsoring this worthy idea. If more of these certified tags were used by the nurserymen, people would finally realize that they were doing business with legitimate dealers.

When all was over and we got to the final tally, we were surprised at the number of wreaths and the amount of roping we had made and sold for cash.

Our attitude toward this Christmas greens business can be summed up as follows:

No one should know more about the Christmas evergreens than the nurseryman. Therefore it is truly a proper field for his endeavor.

No one can have any better facilities for making, selling and distributing Christmas greens than the nurseryman.

The making and selling season comes right at a time when the nurseryman needs added income and work for the regular help he must keep. This endeavor will furnish both if

you will get out and dig for business.

It gives the nurseryman an added opportunity to contact his customers and make new ones and shortens the period left during which they might forget his very existence if left undisturbed by him until spring.

It gives added opportunity for his trucks to earn their keep when they otherwise would be put up in storage, inactive but still constantly depreciating in value.

As we look at it, even though there may be years when you won't make a cent of cash profit over expenses on the greens, still if they take the burden of the pay roll off the shoulders of your savings account for several weeks and pay you a fair mileage for your trucks, that in itself is a rather tidy little profit.

We did not write this article to crow about the success we've made out of a bright new idea of ours, because, in the first place, the final analysis didn't credit us with any overwhelming financial success, and, in the second place, the idea isn't new at all, but is just molding away because it hasn't been used enough. We are confident, however, that a nurseryman can make a fine profit from Christmas greens after he learns how to make and handle them correctly.

We do urge nurserymen to get into this field, which is rightfully theirs, and to boost it for all they are worth. It will pay us singly and collectively, for if people can be taught to come to the nurseryman as the proper and safest person from whom to buy wreaths, roping, trees and other Christmas decorations, then we will have opened up a wide field of profitable merchandising.

If you are doubtful about the quantity of this material which can be sold, see if you can recall more than one or two homes in your whole neighborhood where there wasn't a wreath on the door or in the window and a tree either inside or out. That is your answer. The business is there; the only trouble is that at the present time it is going to somebody else.

From Lone Star State

PLUM QUARANTINE.

Southwestern nurserymen and federal and state inspectors are making headway in finding a satisfactory solution for the quarantine in plums based on the finding of peach mosaic in a symptomless form on Maynard plum by Bodine in Colorado. Research work being conducted in California is proving that other plum varieties are not symptomless carriers of mosaic.

J. M. Del Curto, chief of the division of plant quarantine of Texas, is leaving the Maynard plum on the quarantine list, but is removing all ornamental and other plum varieties from the quarantine, and he is allowing them to move the same as peaches except that each nurseryman in Texas will be asked to keep a record of the destination of plum tree shipments.

The Texas nurserymen have cooperated to the extent that there is not a single mosaic tree in Texas except in the El Paso district, which is 500 miles from the nursery section of Texas, states Ross R. Wolfe, president of the Texas Association of Nurserymen.

TEXANS ON PEACH BAN.

Ross R. Wolfe, president of the Texas Association of Nurserymen, called a meeting of the executive committee and the peach tree growers of Texas to discuss the peach mosaic quarantine. This meeting was held at the Baker hotel, Dallas, October 11, with the following present: Ross R. Wolfe, president; B. E. Williams, vice-president; Harvey Mosty, secretary-treasurer; J. M. Ramsey and J. D. Breedlove, executive committee members; S. C. Kidd, L. A. Dean, Howard Ford, Sam Ford, J. T. Foote and C. C. Mayhew, association members; J. M. Del Curto, state inspector; W. T. McKay, state inspector; A. E. Cavanaugh, bureau of plant quarantine and control, Washington, D. C.

Following are the resolutions passed at this meeting, reports Harvey Mosty, secretary:

Resolved at a meeting of the executive committee of the Texas Association of Nurserymen, at Dallas, Tex., October 11, 1940, that:

Whereas the present state standard quarantines impose upon the state of origin the obligation of protecting other states, and this appears to be illegal and inefficient, and

Whereas a continuation of this intangible quarantine procedure can only result in a multiplication of different state quarantines;

Therefore, if the federal government is to continue its attempt to eradicate mosaic from the nation, said government should place a federal quarantine on this disease comparable to the pink bollworm and the Mexican fruit fly quarantines.

Resolved by the executive committee of the Texas Association of Nurserymen, at Dallas, Tex., October 11, 1940, that reimbursement should be made to owners of nursery stock destroyed by state or federal agencies when such nursery stock is not diseased or infested, but is directly or indirectly destroyed for public good.

Resolved at a meeting of the executive committee of the Texas Association of Nurserymen, at Dallas, Texas, October 11, 1940, that:

Whereas the only evidence of plums being symptomless carriers of mosaic is in the Maynard variety, and whereas work in California indicates that other varieties are not symptomless carriers of mosaic;

Therefore, we recommend that any reference to plums in the state and federal quarantines be confined to the Maynard variety only.

TEXAS SHORT COURSE.

A short course for nurserymen was held at the Texas A. & M. College October 31 to November 2 in the animal industries building at College Station. Members of the college staff and the state experiment station conducted the discussions. Various phases of soil formed the first day's program. Pest control and plant propagation occupied the second day, while the use of ornamental materials and their sale was the subject of discussion Saturday morning, with a football game against Arkansas in the afternoon as a side attraction.

TEXAS PRESIDENT.

Ross R. Wolfe, who was elected president of the Texas Association of Nurserymen in September, is the proprietor of Wolfe's Nursery, Stephenville, Tex., which was started in 1919 as a small enterprise and now employs from thirty to sixty persons, according to the season. His progress has come from the development of



Ross R. Wolfe.

outstanding Texas introductions of fruits and nuts. He was associated for a number of years with E. E. Risien, pecan breeder, who died September 23 at San Saba. Mr. Wolfe is continuing the propagation and dissemination of peach varieties to which J. W. Stubenrauch, of Mexia, devoted his life. He also purchased the vineyards of T. V. Munson, in which are more than sixty varieties originated by Mr. Munson. Among the peaches he has brought to the front is Texaberta, first brought to his attention by J. F. Rosborough, of the Texas A. & M. College.

Much credit for the advancement of the nursery he gives to Mrs. Wolfe, and now associated with them is Hugh Wolfe of football fame at the University of Texas.

Ross R. Wolfe previously served as president of the Texas Pecan Growers' Association.

ORIENTAL PERSIMMONS.

Wolfe's Nursery, Stephenville, Tex., finding the public does not like to buy Japanese persimmons, has changed their name to Oriental persimmons.

Japanese persimmons did not originate in Japan, but in China, being introduced by the Japanese.

The tree is a member of the ebony family and holds up an unbelievable load of fruit. The Eureka (the same as Yemon) fruit looks like a big tomato and is the most popular variety in Texas. Tane Nashi, a large seedless variety, is also popular in that area.

Oriental persimmon trees live to be from 75 to 100 years old and may be planted around the home for ornamental as well as utility purposes. The fruits are as large and as beautiful as oranges and hang on the trees until nearly Christmas.

NEW OKLAHOMA INSPECTOR.

J. Rees Dews, former deputy inspector of the orchard and nursery division of the Oklahoma department of agriculture, was elected secretary-treasurer of the Oklahoma Florists' Association at the close of its annual convention, October 17, and on the following day was appointed head of the orchard and nursery division by Joe C. Scott, president of the Oklahoma state board of agriculture.

HILL EVERGREENS—FOR LINING OUT

Hill's are at your service with an outstanding assortment of choice lining-out Evergreens. Here are a few popular items.

		100	1000			100	1000
Spreading Japanese Yew..	x 4 to 6 ins.	\$0.06	\$0.05	Silver Redcedar	Grafts	\$0.28	\$0.25
Brown's Yew	x 4 to 6 ins.	.12	.10	Silver Redcedar	xx 15 to 18 ins.	.50	.....
Brown's Yew	xx 8 to 10 ins.	.25	.23	Schott Redcedar	Grafts	.28	.25
Anderson Yew	xx 8 to 10 ins.	.19	.17	Dundee Juniper	Grafts	.28	.25
Dwarf Japanese Yew.....	xx 8 to 10 ins.	.25	.23	European Larch	o 8 to 10 ins.	.01½	.01
Hill Pyramidal Yew.....	x 4 to 6 ins.	.10	.08	European Larch	o 10 to 12 ins.	.02	.01½
White or Concolor Fir....	xx 6 to 8 ins.	.10	.09	Oregon Hollygrape	o 4 to 6 ins.	.03	.02
Douglas Fir	x 4 to 6 ins.	.06	.05	Oregon Hollygrape	o 6 to 8 ins.	.03½	.02½
Douglas Fir	x 6 to 8 ins.	.08	.07	Japanese Spruce.....	xx 6 to 8 ins.	.06	.05
Douglas Fir	xx 10 to 12 ins.	.17	.15	Black Hill Spruce.....	x 4 to 6 ins.	.05	.04
Douglas Fir	xx 12 to 18 ins.	.35	.30	Black Hill Spruce.....	xx 6 to 8 ins.	.10	.08
Maidenhair Tree	o 6 to 8 ins.	.06	.05	Black Hill Spruce.....	xx 8 to 10 ins.	.12	.10
Chinese Juniper	o 4 to 6 ins.	.03½	.03	Norway Spruce	x 6 to 8 ins.	.03	.02½
Chinese Juniper	xx 12 to 15 ins.	.12	.10	Norway Spruce	xx 8 to 10 ins.	.07	.06
Keteleer Juniper	Grafts	.28	.25	Norway Spruce	xx 10 to 12 ins.	.09	.08
Pfitzer Juniper	x 6 to 8 ins.	.10	.09	Nest-shaped Spruce	xx 4 to 6 ins.	.10	.....
Pfitzer Juniper	xx 6 to 8 ins.	.15	.14	Pyramidal Norway Spruce	xx 6 to 8 ins.	.15	.....
Pfitzer Juniper	xx 8 to 10 ins.	.20	.17½	Dwarf Alberta Spruce....	xx 8 to 10 ins.	.35	.....
Pfitzer Juniper	xx 12 to 15 ins.	.35	.32½	Tigertail Spruce	x 4 to 6 ins.	.10	.....
Golden Pfitzer Juniper....	Grafts	.28	.25	Colorado Spruce	x 6 to 8 ins.	.06	.05
Blue Col. Chinese Juniper	Grafts	.28	.25	Colorado Spruce	xx 6 to 8 ins.	.10	.08
Blue Sargent Juniper....	Grafts	.28	.25	Colorado Spruce	xx 8 to 10 ins.	.12	.10
Green Sargent Juniper....	Grafts	.28	.25	Mugho Pine	x 3 to 4 ins.	.05	.04
Andorra Juniper	x 4 to 6 ins.	.09	.08	Mugho Pine	xx 4 to 6 ins.	.15	.13
Andorra Juniper	xx 8 to 10 ins.	.18	.16	Limber Pine	x 6 to 8 ins.	.08	.....
Spiny Greek Juniper.....	x 6 to 8 ins.	.11	.10	Limber Pine	xx 6 to 8 ins.	.10	.....
Spiny Greek Juniper.....	xx 8 to 10 ins.	.20	.17½	Austrian Pine	xx 10 to 12 ins.	.15	.13
Japanese Juniper	Grafts	.28	.25	Austrian Pine	xx 12 to 18 ins.	.20	.18
Bar Harbor Juniper.....	x 6 to 8 ins.	.10	.....	White Pine	x 8 to 10 ins.	.08	.07
Bar Harbor Juniper.....	xx 10 to 12 ins.	.15	.....	Scotch Pine	x 10 to 12 ins.	.09	.07
Von Ehron Juniper.....	x 6 to 8 ins.	.09	.08	Scotch Pine	xx 10 to 12 ins.	.14	.12
Colorado Juniper	o 3 to 4 ins.	.03	.02½	Scotch Pine	xx 18 to 24 ins.	.30	.28
Chandler's Silver Jun....	Grafts	.28	.25	American Arborvitæ.....	xx 8 to 10 ins.	.12	.10
Silver Glow Juniper.....	Grafts	.28	.25	Hill Pyr. Arborvitæ.....	x 4 to 6 ins.	.08	.06
Meyer Juniper	Grafts	.28	.25	Hill Pyr. Arborvitæ.....	xx 6 to 8 ins.	.14	.12
Redcedar	o 4 to 6 ins.	.03	.02½	Hill Pyr. Arborvitæ.....	xx 10 to 12 ins.	.20	.18
Cannart Redcedar	Grafts	.28	.25	Woodward Arborvitæ.....	x 6 to 8 ins.	.09	.07
Cannart Redcedar	xx 15 to 18 ins.	.50	.....	Woodward Arborvitæ.....	xx 8 to 10 ins.	.18	.16
				Hemlock	x 6 to 8 ins.	.09	.08

25 of the same variety and size at 100 rate; 250 at the 1000 rate. Each x indicates one transplanting; o indicates seedlings.

Send for new fall wholesale catalogue now ready for mailing. Dealer's descriptive catalogue, 60 color plates of Evergreens, no prices shown, 50c per copy.

D. HILL NURSERY COMPANY

EVERGREEN SPECIALISTS - LARGEST GROWERS IN AMERICA

DUNDEE, ILLINOIS

The appointment fills a vacancy created by the recent death of Thomas B. Gordon, reported in this issue.

J. Rees Dews received his training in the greenhouse established by his grandmother at Chickasha, in 1892. From 1929 until the death of his mother, Mrs. Joe Dews, he was associated with her in that business. He has been with the Oklahoma department of agriculture since September, 1939.

OBITUARY.

Thomas B. Gordon.

Thomas B. Gordon, age 44, chief inspector of the orchard and nursery division of the Oklahoma state department of agriculture, died unexpectedly of coronary thrombosis at his home, at Oklahoma City, October 10.

He served as inspector in the Oklahoma department of agriculture more

than nineteen years. He held the degree of bachelor of science in agriculture from the University of Kentucky, did graduate work and taught men in military service at Amherst College, and later took leave from his duties at Oklahoma City to complete the work for the degree of master of science in agriculture from Oklahoma A. & M. College, Stillwater.

Survivors include his widow, three stepsons and his mother.

Selling by Mail

ADVERTISING PIECE.

As necessary as a truck to a firm offering landscape designing and planting service is a folder or booklet which may be given to the prospective client to stimulate his interest in what you have to offer. This does not refer to a retail catalogue or price list of nursery stock.

This need has been met by nursery firms in a variety of ways. Just to hand is the advertising piece for this year from the Valley Heights Nursery Co., Oakmont, Pa., an especially attractive and interesting booklet of twelve pages, 8 1/2 x 11 inches, printed in three colors on paper faintly tinted light green. The colors of red and green are used primarily in printing sketches of homes and lawns, with the trees and shrubs planted about them. The same colors are used for some decoration of the text.

In moderately large, well spaced type, the text suggests the enjoyment the homeowner may have outside his house and the need of thoughtful planting to obtain that enjoyment fully. Emphasis is placed upon the wisdom of a preliminary plan, to look ahead to what is to be accomplished, even though the work may be done over a series of years, in accordance with the client's pocketbook.

Ability of the firm is suggested in the skillful presentation of the foregoing, although one page is devoted to a statement of the services offered by the Valley Heights landscaping department. The sketches in the booklet are credited to Bernard R. Cusack, graduate landscape architect. Whether or not the text was written by Alan W. Morten, manager, or by a professional advertising man, it tells the story in well chosen words.

Booklets of this type obviously cost more than simple mailing pieces or form letters, but they may be used for more than one season and the number required kept down by selective distribution. The prospect who receives one, on the other hand, is likely to look it over carefully, and probably more than once, leaving it on the desk or table because it is too attractive to be thrown away. In such an instance, as in any form of advertising, the price is not so important as the comparative results.

"ANDORRA ADVOCATE."

That a mailing piece to promote sales may be handsome and effective while printed in one color and simple in design strikes one immediately upon seeing a copy of the "Andorra Advocate." This is a 4-page folder, 5 1/2 x 7 1/4 inches, mailed flat in an envelope with only return post card enclosure. The first page is entirely devoted to a handsome picture of the subject of the folder. The inside two pages carry further illustrations and only a small amount of well displayed text, and on the fourth page are recommendations of special values.

The subject matter may be general commendation of a plant, such as the rhododendron or the yew, and in that event the post card is to be used to summon a salesman or make an appointment to visit the nursery.

Other issues offer special values in groups of plants. One, for instance, offered berry-bearing trees and shrubs with which a customer might begin a bird sanctuary. Seven different plants were offered for the price of

six, sizes varying and one or two balled and burlapped plants being included in each group; the prices on the groups were \$9.50, \$12, \$14.75 and \$25, delivered free within fifty miles, "nominal charge for planting."

Another issue was devoted to flowering trees, and a half dozen were offered in each of four groups chosen for variation in color, height and flowering time and priced at \$9.75, \$12.50, \$16.75 and \$24.

Similarly offered in groups of a half-dozen varieties were broad-leaved evergreen shrubs. For the group offers the return post card offered an easy means of ordering.

As to issuance of "Andorra Advocate," F. E. L. Killen, secretary of Andorra Nurseries, Inc., Chestnut Hill, Philadelphia, Pa., says:

"The issue devoted to taxus is our fifth publication, and it has been our policy to get these booklets out twice during the fall and twice during the spring. While there is no definite mailing date, we have tried to get them in the mail around October 1 and November 1 and April 1 and May 1. Our mailing list includes all landscape architects of which we have record, as

Old Beck travels 18,000 MILES A YEAR FOR ARP NURSERY CO.



The Home of Better Rooted Trees

BOX 867

TYLER, TEXAS

Wholesale Growers

PECANS - FRUITS - ROSES

well as our own customer and prospect list. The circulation usually amounts to about 4,000. We have had an excellent response from these booklets and quite a number of orders that could be directly traceable.

"The fundamental idea back of the advertising is to impress our readers with the fact that we have a collection of excellent plants here at Andorra at quite reasonable prices. General conditions being what they are, we feel that this is an important message and one which is helping us overcome unreasonable competitive activities."

BACTERIA NOT PATENTABLE.

Whereas some species of bacteria are plants, the court of last resort has upheld the position of the United States Patent Office that a new species of bacteria cannot be patented.

The decision was handed down by the Court of Customs and Patent Appeals in re Arzberger, 46 U. S. Patents Quarterly 32, 112 F. (2d) 834 (1940), and affirmed the position taken by the patent office.

Arzberger had isolated from soil and had grown in culture a new species of bacteria which ferments sugar mash to yield butyl alcohol, acetone and grain alcohol. He found that this microorganism, which he named *Clostridium saccharobutyl-acetonicum-liquefaciens*, reproduces by binary fission. He filed an application for patent in proper form under the provisions of the plant patent statute. The patent examiner conceded that the invention possessed novelty and utility, but he rejected the single patent claim of the application on the ground that bacteria are not patentable subject matter. The court held that the plant provision of the patent law does not permit the patenting of bacteria, first because it is not certain that bacteria in fact are plants, and second because the court was of the opinion that Congress had not intended to extend such protection to bacteria.

The plant patent provision, like the rest of the patent law, requires the inventor to control his subject matter and operate upon it. Arzberger did not control the reproduction of his bacteria by any operations upon them. He merely isolated the bacteria and provided them with a suit-

Hemlock

(CANADIAN)

3 to 4 ft. \$1.50	4 to 5 ft. \$2.00	5 to 6 ft. \$2.50
-----------------------------	-----------------------------	-----------------------------

Also Specimen 9 to 15 ft. — Extra fine stock.

Pin Oaks

1 to 3 ins.
One of Largest and Best Stocks in America.

Lonicera Fragrantissima

2 to 3 ft.	3 to 4 ft.	4 to 5 ft.
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Hillenmeyer Nurseries — Lexington, Ky.

MAKE YOUR BEST FALL LANDSCAPE PLANTINGS

and Sales with freshly dug, brightly colored snappy

HARDY VERHALEN EVERGREENS

Full size ROSES ready for you in November.

L. C. Ihrke, *Northern Representative*

VERHALEN NURSERY COMPANY

Scottsville, Texas

Wholesale Only

1887

1940

WE OFFER FOR IMMEDIATE OR LATER SHIPMENT

JUNIPERUS VIRGINIANA. Red Cedar.		Per 100	Per 1000
4 to 6 inches, 1-yr., Tr., Field-grown.....		\$2.00	\$15.00
6 to 12 inches, 1-yr., Tr., Field-grown.....		2.50	20.00
12 to 18 inches, 1-yr., Tr., Field-grown.....		3.50	30.00
18 to 24 inches, 1-yr., Tr., Field-grown.....		6.00	50.00
Understock, Grafting grade		3.50	30.00

Send us your want list for special quotations.

Write for copy of our Fall Trade List.

FOREST NURSERY COMPANY, INC.

Established 1887
By J. H. H. Boyd

McMinnville, Tennessee

J. R. Boyd
President

able environment. They propagate themselves without human intervention. Further, the plant patent statute deliberately refrains from rewarding the plant explorer, even though his discovery be the result

of an extensive, wisely planned and carefully executed program of explorer. Arzberger is such an explorer. The species which he claimed may be ancient, although no one had isolated and described it before.



Charlie Chestnut



Notes on Taking Inventory

For all of 20 years I know of, we aint had no inventory at the Riverbend Nursery. This is the story of how we almost had one. "After all," as I told Emil, "it aint no trick to look out in back of the barn and see what's out there." The inventory was one of the wild ideas Emil picked up at the convention in New York this summer.

"All the members which I talked to on the trip wouldn't give no prices on their stuff at all until after they took their inventory," Emil says when he got home. He wasn't home half a day when he begun to get excited about the inventory. "We have got to go to work on it right away, Chas," he says. "Bring a pencil and paper and we will get started."

"How about them honeysuckle cuttings we was going to make up, Emil?" I says. "Couldn't the inventory go over a few days?" I says. "We got a lot of cuttings to put in."

"Chas," he says, "when I go to the convention I got my ears and eyes open for ideas. Now this here inventory is the most important thing I picked up on the trip. I don't see now how in the world we ever got along without no inventory for all them years. No wonder we never know where we are at. When we was looking at Niagara Falls one of the members says to me, 'Emil, do you mean to say you aint never took a inventory in your life? That's bad, awful bad. Better do it right away,' he says. 'You might have more stuff than you figgered,' he says, 'and again you might have less.'"

"So what?" I says to Emil. "You still got the same old junk left after all the commotion of counting it up."

"Chas," he says. "It aint no wonder I am half nuts."

"You are giving yourself a big break if you figger you are only 50% off in the head," I says.

I could see that was the end of the argument, so we took a paper and pencil and we started in on that block of stuff by the railroad track.

"The first item is Globe Arborvitae," Emil says. "Put down about 20 assorted."

"There aint nothing assorted about that lot, Emil," I says. "They're all alike. It's all half dead and no account stuff, which ought to be grubbed out."

"They aint made their growth yet this summer, Chas. They will be good stuff by this fall," Emil says. "Put down 20," he says.

"O. K.," I says, "20 it is, only you got to have the size and the right name of the variety if you want to have a 100% inventory. Where did you get that stuff at anyway, Emil?" I says. "I remember they been right there in that row for 10 years. I bet they aint got no more roots than a hitching post," I says.

"Them is a lot I took in on a trade with the F. & M. Nursery," Emil says. "Jake claimed they was the genuine old Globe, hardy as a rock, Jake said."

"Jake slipped you a lemon on that deal, Emil," I says. "If this is a hardy variety, you would be took for Clark Gable," I says.

"Me and Jake come out 50-50 on that deal," Emil says. "I slipped him some red raspberries that was lousy with the itch so I wasn't out nothing," Emil says.

Emil pulled back the weeds a little. "Lookit here, Chas," he says, "this here one is a new variety. It's kinda golden all over. I'm going to go to work and put out a new variety. Make a note there, Chas. to take

some cuttings off of this here one this fall, and I will get it written up for the paper."

"Wait a minute," I says, "that aint nothing new. That one is just more dead than the rest. They always turn yellow when they are getting ready to kick off," I says.

I took a look around and pointed out to Emil where the rabbits had chewed off most of the stem, but that didn't make no difference to Emil. "Put it down on the paper," he says. "One Riverbend Golden Arborvitae. Be sure you dont dig that on a order."

"Going to get out a patent on it?" I says.

"If the cuttings come true, I will patent it sure," Emil says.

He was kicking around there in the weeds when he hit something that made a clatter. "Holy Mackeral, Chas," he says, "here is that Whiffle tree that's been missing for two years. Remember the time they had the fire at the windmill factory?"

"That's 4 years ago this July, Emil," I says.

Emil says, "I was out cultivating when the whistle blew and left the horse stand. I didn't get back until the middle of the afternoon. We found the cultivator afterwards, but that whiffle tree never turned up. What do you know about that, Chas," he says. "That whiffle tree was one I got made up by the blacksmith just for cultivating." He shook the dirt off and looked it over. "Just as good as ever," he says.

"Better kick around some more," I says. "Maybe you will find that

70th ANNIVERSARY

"LAKE'S"

SHENANDOAH NURSERIES SHENANDOAH, IOWA

OUR NEW FALL WHOLESALE TRADE LIST

Is Now Available

Offering a complete line of GENERAL NURSERY STOCK and many NEW VARIETIES OF SPECIAL MERIT

Write for this Splendid, Complete Price List.

SPECIMEN NURSERY STOCK

Shade Trees, Flowering Trees and Evergreens

In Larger Sizes — Send for Wholesale List

LEWIS NURSERIES, INC.

ROSLYN, LONG ISLAND

MODERATE PRICES

RHODODENDRON HYBRIDS.
Grafted, hardy varieties only.

AZALEA KAEMPFERI HYBRIDS.
Named varieties, the hardest of all Azaleas for landscape work.

KOSTER'S BLUE SPRUCE. Perfectly shaped; transplanted.

EUROPEAN BEECH, fine specimen
Also fastigiata, pendula, Riversii.

Ask for catalogue

BAGATELLE NURSERY

P. M. Koster, Mgr.

P. O. Huntington Station, L. I., N. Y.

The Best in Native
Nursery-Grown

Rhododendrons

Kalmia Hemlocks

Azaleas and Pieris

LaBars' Rhododendron Nursery
STROUDSBURG, PA.

de WILDE'S
**RHODO - LAKE
NURSERIES**

SHILOH, N. J.

RHODODENDRONS,
AZALEAS
AND OTHER
ERICACEOUS PLANTS

Bobbink & Atkins

**Hybrid Rhododendrons
and Taxus.**

**Hardy Azaleas, Mollis
and
Schlippenbachii.**

EAST RUTHERFORD, N. J.

KOSTER COMPANY, INC.

AZALEA CORAL BELLS FOR FORCING
Per 100 Per 1000
6 to 8 ins. B&B.....\$45.00 \$400.00
8 to 10 ins. B&B.....75.00 800.00
10 to 12 ins. B&B.....100.00 900.00
AZALEA HINDSII FOR FORCING
6 to 8 ins. B&B.....40.00 350.00

BRIDGETON, N. J. Write for catalogue.

horse collar you accused me of selling to the junk man last spring."

"Put down 2 of these here Globes, 4 footers. I ought to get \$3.00 on them" Emil says. "The others I will work in for landscape jobs at 75c when we have competition with Jake. This here stuff will look good on paper."

"What's that row of shrubs right in back of you, Emil?" I says. "Looks like a grab bag to me," I says.

"That there is a lot of lilacs I bought from John Bushbottom. There was 50 in the lot. John claimed they was double white, grafted stuff," Emil said. "They aint never had a bloom on 'em," Emil went on, "and now I see they mostly run to privet. Maybe I can cut off them few lilac shoots and sell 'em for Amor River Privet. Put down 30 Privet, Chas., heavy clumps. Better call it extra heavy, and make a note to cut out them lilac branches," Emil says.

"I hope we dont ever get to sell any of them mongrel privets, Emil" I says. "It would take 2 days to dig one and then you would have a hole big enough to bury a horse standing up. Now it comes to me why I couldn't find them 2 lilacs for Mrs. Brewster's order this spring. I was looking for lilacs and not for privet," I says. "That inventory is going to be a big help at that," I says. "Hereafter when I want to find stuff I'll just look it up in the inventory."

"Well, well, Chas., you finally catch on what this inventory does for anybody. I dont see how we ever got along without it," Emil says. "Now let's see, next is this row of fruit trees, bearing size. Put that down, Chas., bearing size."

"What do you figure you got here in this row, Emil, what kind; how big and how much dough," I says.

"Better start a page for miscellaneous. Just put down 40 Apple trees, assorted, choice kinds, 6 inch and up. Put that down, Chas."

"Here's a Mountain Ash mixed in here, Emil," I says. "Does that go under Apple trees too?"

"That's where the miscellaneous comes in, Chas. This here is odds and ends left every spring from the trench. You never can tell when you might get an order. I remember one time years ago I got a call for a

GRAFTED STOCK

From 2 1/4-in. Pots

Ready for delivery about
May 1, 1941

For southern or far western orders, stock can be shipped late February or early March.

You can save 10% on the price of your grafts, if you will place your order before January 1, 1941. Early orders are a help to us in making up our propagating list, and we are giving you the benefit of this by allowing this special discount.

	Per 10	Per 100
<i>Acer palmatum</i> Ashi-Beni	\$3.50	\$30.00
<i>Acer palmatum</i> atropurpureum	3.00	25.00
<i>Acer dissectum</i> atropurpureum	3.00	25.00
<i>Cedrus atlantica</i> glauca	4.00	35.00
<i>Chamaecyparis obtusa</i> gracilis nana compacta	3.00	25.00
<i>Cornus florida</i> alba plena	3.00	25.00
<i>Cornus florida</i> pendula	3.00	25.00
<i>Cornus florida</i> rubra	3.00	25.00
<i>Fagus sylvatica</i> pendula	3.00	25.00
<i>Fagus sylvatica</i> Riversii	3.00	25.00
<i>Fagus sylvatica</i> tricolor	3.00	25.00
<i>Ilex opaca</i> femina	2.75	25.00
<i>Ilex opaca</i> Howardii	2.75	25.00
<i>Juniperus columnaris</i> glauca	2.75	25.00
<i>Juniperus columnaris</i> viridis	2.75	25.00
<i>Juniperus chinensis</i> neoborealis	2.75	25.00
<i>Juniperus chinensis</i> Sargentii	2.75	25.00
<i>Juniperus chinensis</i> Sargentii glauca	2.75	25.00
<i>Juniperus scopulorum</i> glauca	2.75	25.00
<i>Juniperus squamata</i>	2.75	25.00
<i>Juniperus squamata</i> argentea variegata	2.75	25.00
<i>Juniperus squamata</i> Meyer	2.75	25.00
<i>Juniperus virginiana</i> Burkill	2.75	25.00
<i>Juniperus virginiana</i> Canertii	2.75	25.00
<i>Juniperus virginiana</i> elegantissima	2.75	25.00
<i>Juniperus virginiana</i> glauca	2.75	25.00
<i>Juniperus virginiana</i> globosa	2.75	25.00
<i>Juniperus virginiana</i> Keteleeri	2.75	25.00
<i>Juniperus virginiana</i> Kosteri	2.75	25.00
<i>Juniperus virginiana</i> Schottii	2.75	25.00
<i>Juniperus virginiana</i> pendula	2.75	25.00
<i>Juniperus virginiana</i> pyramidiformis	2.75	25.00
<i>Juniperus virginiana</i> pyramidalis	2.75	25.00
<i>Juniperus sabina</i> Von Ehren	2.75	25.00
<i>Magnolia Alexandrina</i>	3.25	30.00
<i>Magnolia Halleum</i> stellata	3.25	30.00
<i>Magnolia Lenoel</i>	3.25	30.00
<i>Magnolia Soulangeana</i>	3.25	30.00
<i>Magnolia Soulangeana</i> nigra	3.25	30.00
<i>Picea pungens</i> Moerheimii	2.75	25.00
<i>Pinus Cembra</i>	2.75	25.00
<i>Quercus Robur</i> fastigiata	4.00	35.00
<i>Thuja occidentalis</i> Douglasii spiralis	3.25	30.00
<i>Thuja occidentalis</i> elegantissima	3.25	30.00
<i>Thuja occidentalis</i> lutea Geo. Peabody	3.25	30.00
<i>Thuja occidentalis</i> lutea B. & A. Type	3.25	30.00
<i>Thuja occidentalis</i> nigra	2.25	20.00
<i>Thuja occidentalis</i> Rosenthali	2.25	20.00
<i>Thuja occidentalis</i> Wareana (elbrica)	2.25	20.00
<i>Thuja orientalis</i> aurea nana	2.00	18.00
<i>Thuja orientalis</i> conspicua	2.00	18.00
<i>Thuja orientalis</i> elegantissima	2.00	18.00
<i>Taxus media</i> Brownii	2.75	25.00
<i>Taxus media</i> Hatfieldii	2.75	25.00
<i>Taxus canadensis</i> pendula	2.75	25.00

HESS' NURSERIES

P. O. Box 52

Mountain View, New Jersey

whole orchard, bearing size. I could of cleaned up."

"The trouble is, Emil, the customers generally want to know what they are going to get. They don't go for the miscellaneous too strong," I says.

By that time Emil had moved over by the shade trees.

"Emil, you can see it don't pay to plant the Box Elders so close to the Norway Maples," I says. "You couldn't fill a order now for Norway unless you saw off 2 Box Elders. The Box Elder has got the Maples stymied. They got the Maples surrounded. All you could do is blast and take what comes," I says.

"Cut out the noncents, Chas." he says, "and put down 65 shade trees assorted."

"Aint no use to count on 65, Emil, you couldn't get one out of the middle unless you start at the end and untangle the branches as you go. If we took a cross cut saw we could get out 5 or 6 good trees, that is, if we got a derrick to lift it after we got it dug," I says.

"One of the members of the Convention told me big shades was getting scarce. He said anybody had any good big stuff could clean up," Emil said. "Only last year we had an inquiry for a 8 inch Maple, but they wanted a ball and I couldn't dig with a ball without wasting 3 or 4 other trees so I didn't take the order."

"Did you say 65 trees here, Emil?" I says. "I only make at about 40. Sure you didn't count in them White Birch. One has got 8 stems and one has got a dozen. In fact, Emil, we aint dug a tree out of here for years. If it wasnt that the owls roost here and help to keep down the mice, I would be in favor of grubbing the whole business out."

"Chas., if you had your way practically everything would be grubbed out, and we wouldn't have nothing but open prairie," Emil says.

"A good open prairie would be an asset to anybody instead of a liability like 90% of the whole nursery," I says.

"Chas." he says, "did you ever stop to think how it would look to the bank when they look over their notes. I got nursery stock listed in my statement at a good figure. They don't know if nursery stock is good or bad, but if they see me grubbing out stuff right and left right away they begin to snoop around. Then if

all they see is open ground, they begin to get jumpy about the security. You got a lot to learn, Chas., on how to run a nursery. Then besides, if you clean off all the brush there aint no good cover for pheasants and rabbits. There's a lot of angles to this nursery business Chas. A person cant just go off half cocked and start chopping out and cleaning up stuff all at once. First thing you know your out of business. The word gets around the Convention that there aint nothing at your Riverbend Nursery but level ground. Chas., I'll tell you one thing to keep in mind. A certain amount of big stuff around the Nursery looks like you was doing a little business even if you aint."

"We aint getting any place with the inventory standing here," I says to Emil. "Are you going to tackle that jungle of Evergreens this P. M.? There's parts of that block you couldn't cut thru with out a ax. Wouldn't surprise me if there was Indians and bears hid back in there," I says.

Emil stood there for a few minutes scratching his head.

"Better knock off for today, Chas.," he says. "But don't lose them papers!"

He went on down to the depot and I went back to the office. That was six weeks ago, but Emil aint brought it up since. Don't anybody think I'm going to mention the inventory myself. If Emil dont think of it again,

the inventory is a dead issue at the Riverbend Nursery.

NEW PLANT PATENTS.

The following plant patents were issued last month, according to information received from Rummler, Rummler & Davis, Chicago patent lawyers:

No. 428. Rose plant. Victor Lens, Wavre Notre Dame, Belgium, assignor to Jackson & Perkins Co., Newark, N. Y. A new and distinct variety of hybrid tea rose plant characterized as to novelty by its vigorous habit of growth and great floriferousness, the slender form of bud and high-centered form of flower, together with the varying color combinations of its petals with associated large number of stamens when flowers are open; the long flowering stems, large number of leaflets and the brick-red color of the upper side of the leaf stems.

No. 429. Ivy plant. Sylvan Hahn, Pittsburgh, Pa. A new and distinct variety of ivy plant characterized particularly by its medium-small, radiate leaves with varix veins and short petioles; its short nodes, its rapid bushy and compact growth and its habit of branching freely without trimming.

No. 430. Ivy plant. Sylvan Hahn, Pittsburgh, Pa. A new and distinct variety of ivy plant characterized particularly by its intense compactness and density of growth, its close-set, overlapping leaves of distinctive shape; its habit of growing first upright and later pendulous, and its rapidity of growth and freedom of self-branching, which enable it to produce salable plants in an unusually short time.

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HEMLOCK

5 to 6 ft., up to 8 to 10 ft.

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ARTHUR DUMMETT

61 W. Grand Street, Mt. Vernon, N. Y.



water lilies originated at the Missouri Botanical Garden, St. Louis, and are now reaching their peak in the pools of the garden's entrance plaza. One is called Judge Hitchcock and the other Director George T. Moore.

It is eight years since the garden has named a lily hybrid. The last, in 1932, were the giant white-flowering night lotus, Missouri, and the first and only yellow, St. Louis.

Curiously, the depth of color in Judge Hitchcock derives not from any blue ancestor, but apparently from the strongly colored Burtii species, the lost lily of Africa, which is yellow. Similarly the garden experts recall that attempts years ago failed to develop a white hybrid from the only white species, and the first white hybrid, Mrs. G. H. Pring, was produced in 1922 from parentage dominantly blue.

Ten ancestors figured in the family tree of Judge Hitchcock, which is named for George C. Hitchcock, president of the garden board of trustees. At one end of the line was the African lost lily and at the other end was the small hybrid, Independence, which looks red, but which the experts say carries blue.

Depth of shade was not the only thing to be sought. Tropical day bloomers in anything deeper than lavender have tended to be runty and fail to open properly. What the other eight ancestors contributed may be seen in Judge Hitchcock's 10-inch blooms.

Somewhat deeper, even, is Director Moore, named for the garden's executive head. Its even shade, in contrast to the lighter sepals of Judge Hitchcock, one of the parents, was derived from the blue African pygmy, colorata.

From the pygmy, Director Moore gets a cherished tendency to develop community heads, a half-dozen blooming at one time, in contrast to the two or three of other hybrids. Also, in contrast to the lilies which do tend to community heads, these 6-inch blooms are of uniform size and vigor.

From the pygmy, likewise, came the smaller leaves of Director Moore. The fully developed plant, with eight flowers and eleven buds, would fit into a 6-foot pool as compared to the 8-foot spread of earlier hybrids.

C. F. G.

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5 to 6 ft. and 6 to 7 ft.

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This Business of Ours

*Reflections on the Progress and Problems
of the Nurseryman—By Ernest Hemming*

PLANT NAMES.

A nursery salesman with any experience at all knows what a severe handicap to the sale of his merchandise are the Latin plant names. To the average customer, the Latin name conveys no meaning whatever, yet the goods have to be sold mostly by the Latin name. Of course, a good many plants have a common name by which they may be identified, but, unfortunately, these common names are apt to change according to locality.

An experience I had some years ago taught me that even under the most careful attempt to explain what kind of trees was being quoted upon, a misunderstanding could occur. It happened somewhat as follows. A prospective customer wrote he had about a mile of drive which he wanted to line with trees, and what kind of tree would we recommend? After advising they be planted on 50-foot centers, we advised him to plant them opposite each other if the drive were straight or to alternate them if the drive were curved. Then, we offered him a choice of three kinds for his part of the country, describing them as follows:

Quercus palustris, pin oak, an oak with pyramidal outline, good fall color. Size and price.

Liquidambar styraciflua, sweet gum. Pyramidal in outline, star-shaped leaves, corky bark, splendid fall color. Size and price.

Ulmus americana, American elm. Mature outline, wine-glass shape, rapid grower. Size and price.

The customer selected the sweet gum, and the trees were duly shipped as a carload lot, leaving a satisfied feeling of a good sale. In due time a letter came informing us of the arrival of the trees and his disgust to find we had shipped him rubbishy bilsted that he had been paying hillbillies all winter to grub out.

A little thought will convince anyone that the only way to be sure of the identity of a plant is by use of its authorized Latin name and, even with these, too often a plant will have more than one in common use. Most good nursery salesmen, out of

consideration for the customer, will never use the Latin name if the plant has a common one that will do.

Harking back to school days, what little Latin I was taught was worthless as far as it applied to plant names. Or, perhaps, it was that I was unusually dumb and unable to apply it. Anyway, after I had left school and was serving my apprenticeship in the nursery, I discovered a method by which I could learn all the Latin necessary in a few hours to enable me to memorize the plant names and attach them to the right plant. It consisted of making a list of words or terms most frequently met with, such as colors, with their Latin equivalent:

Alba—white.
Nigra—black.
Rosea—rose.
Rubra—red.
Lutea—yellow.
Coculea—blue.
Celestis—sky-blue.
Purpurea—purple.

Then the shapes of leaves would be listed:

Rotund—round.
Hastate—like an arrowhead.
Ovate—heart-shaped.
Linear—grasslike.

The margins of the leaves came next, and the meaning of such words as serrate, crenata, dentate, mucronate, etc. It is extremely useful to

learn how to count in Latin up to ten: Unus, duo, tres, quartus, quintus, sextus, septem, octo, novem, decem. When you have learned the numbers in Latin, the trifolias, quadrifolias and quinquefolias become simple and descriptive. In other words, a few hours with the glossary in the botany book gave me more help than weeks of study in a Latin schoolbook. The above applies largely to the specific names of plants.

The derivation of the generic or family name is often more obscure, such as gentian, named from Gentius, king of Illyria, who used some species medicinally, which means nothing to us living in the United States in the present century.

We cannot do without or substitute for the Latin names of plants; so the next best thing is to make them popular and easy for the layman. It goes without saying that the nurseryman should keep his plants plainly labeled and cooperate with the garden clubs, schools and other sources of horticultural education. Who knows, perhaps some day a practical Latin scholar will compile a small book giving us just enough Latin to make the memorizing of plant names easy, for distribution to garden clubs? E. H.

STUART C. SIMPSON, of the Simpson Nursery Co., Monticello, Fla., was elected vice-president of the local Kiwanis Club for the year 1941.

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TENNESSEE HIGHWAY BID.

Sealed bids will be received by the department of highways and public works, Nashville, Tenn., until November 8, for the roadside development of state highway No. 112, calling for 38,768 square yards of sodding, eighteen Quercus rubra, twelve Ulmus americana, six Liriodendron Tulipifera, four Salix babylonica, six Liquidambar styraciflua, sixteen Cercis canadensis, twenty-three Cornus florida, four Platanus occidentalis, twenty-eight Rhus typhina and 1,946 Lonicera japonica.

The project also calls for twenty-five acres of grass seeding, eleven tons of domestic peat, fifty-four tons of agricultural limestone, several thousand pounds of commercial fertilizer and bone meal, as well as 8,000 cubic yards of topsoil.

JEFFREY HAS TREE MOVER.

W. L. Jeffrey, who was landscape forester for the grounds of Missouri state institutions, is now manufacturing the tree mover that he had the opportunity to test in various parts of the state in that capacity. He regards the safety factor and the ease of operation of great importance in this device. Several patents have been applied for, and the first was issued last summer. Production and distribution problems are being worked out, but under the name of Jeffrey Tree Movers, Fulton, Mo., he has already issued a folder describing and picturing his equipment and indicating prices.

THE Orinda Nursery, Orinda, Cal., leased by Roy Jacobson and Karl Walters from A. J. Memmesheimer, who is now located at Lafayette, opened last month. Mr. Walters is the son of William Walters, who for forty years owned and operated the Ashby Nursery at Berkeley.

THE wedding of Miss Dorothy M. Cashman, daughter of Senator M. R. Cashman, former president of the American Association of Nurserymen, and R. A. Crawford took place October 19, at Owatonna, Minn. Misses Patricia, Rosemary, Jean and Mary, sisters of the bride, were bridesmaids, and her brothers, Richard J., Robert and Charles E., served as ushers.

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Tulip Poplar, 6 to 12 ins.	5.00
Russian Mulberry, 6 to 12 ins.	3.00
American Sycamore, 6 to 12 ins.	4.00
Black and White Walnuts, 6 to 12 ins.	8.00
Black Locust, 6 to 12 ins.	3.50
American Elm, 6 to 12 ins.	3.00
Chinese Elm, 6 to 12 ins.	5.00

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Diseases of Trees

*Latest Findings on Various Infections of Trade Importance
Reported in Recent Research Studies — By Leo R. Tehon*

DUTCH ELM FUNGUS LIVES AT LOW TEMPERATURE.

A fact of considerable interest, bearing upon the relationship between the Dutch elm disease and the European elm bark beetle, is the recent report that the Dutch elm disease fungus had been reisolated 100 per cent from a number of infested beetles stored for two and one-half years at 10 degrees below zero, Fahrenheit, but that it was not reisolated at all from infested beetles stored for only 120 days at 70 degrees.

In a series of experiments reported upon in August, 1940, C. S. Moses, of the federal division of forest pathology, and Clarence H. Hoffman, of the federal bureau of entomology and plant quarantine, artificially infected 1,100 elm bark beetles with the Dutch elm disease fungus, placed the beetles individually in gelatine capsules and stored equal lots of them at 70, 60, 40, 28 and -10 degrees. At the expiration first of thirty days, then of sixty, ninety and 120 days, they removed given numbers of the beetles from storage and attempted to recover the Dutch elm disease fungus from them by laboratory methods.

At the end of the 30-day period, and also at the end of the 60-day period, they were able to get practically a 100 per cent recovery of the Dutch elm disease fungus from all beetles, regardless of the temperature at which the beetles had been kept. After ninety days, however, they were able to recover the fungus from only sixty per cent of the beetles stored at 70 degrees and fifty-eight per cent of those stored at 60 degrees, while still making 100 per cent recoveries from beetles stored at lower temperatures. After 120 days they got recovery of the fungus from none of the beetles they had stored at 70 degrees and from only twenty-eight per cent of those they had stored at 60 degrees. They still, however, secured 100 per cent re-isolation from the beetles they had stored at temperatures of 40 degrees and lower.

Additional to the above, they

stored artificially infected beetles at a temperature of -10 degrees for much longer periods. Their laboratory reisolations of the Dutch elm disease fungus from these beetles were 100 per cent at the end of one year, ninety-eight per cent at the end of one and one-half years and 100 per cent at the end of two and one-half years.

BUTT ROT IN EASTERN OAK.

A large proportion of the area in the better and more accessible timber sites of the Allegheny, Appalachian and central hardwood forest regions is covered with young, even-aged stands of oak stump sprouts. Particularly is this true north and west from central Virginia and West Virginia, where for years oaks have been cut on short rotations in order to secure charcoal, mine props, distillation wood, fuel and other forest products.

In this region of stump sprout stands two difficulties in management are encountered. A large proportion of the trees or sprouts stand in groups of two or more, making for

poor spacing, with its adverse effect on growth and form. More serious is the fact that from ten to forty per cent of the sprouts, depending upon the oak species, are rotted at the butts as a result of the transmission of decay from the parent stump into the base of the sprout.

Improvement of such stands, after they have reached an age of 20 years, is difficult, because one cannot tell with certainty which sprouts are infected with butt rot and because one cannot well reduce the number of sprouts without creating an additional infection hazard through leaving large, open slashes.

Under 20 years of age, sprout stands can be improved without difficulty. Sprouts that arise at or near the ground line, it has been clearly demonstrated, are least likely to be infected. Also, sprouts arising from smaller stumps have a better chance of remaining sound than those arising from larger stumps. At a young age the basal characteristics of sprouts can be determined and thinning can be done intelligently. When, however, a sprout has reached such a size that the parent stump is grown over, the point of origin of the sprout is obscured, companion sprouts have become large, and it is too late to carry on the most effective improve-

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90c per 10, \$7.50 per 100

Border Queen, Beacon, Bridesmaid, Caroline Vandenberg, Ethel Pritchard, Daily Sketch, Emain Macha, Eiffel Tower, E. I. Farrington, Feuerbrand, Graf Zeppelin, Hauptmann Koehl, Miss Lingard, Lillian, Morgenrood, Maid Marian, Painted Lady, Rheinland, Thor, Rijnstroom, *Gypsophila Bristol Fairy*, *Hemerocallis*, *Peonies*, *Jap. Irises*, *Oriental Poppies*, *Trollius*, *Delphiniums*, *Bleeding Hearts*, *Chrysanthemums*.

Send for complete list.

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PROFITABLE PEONIES

Best Varieties. Attractive Prices. Fine Quality Roots. Liberally graded.
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We offer to the wholesale trade a beautiful block of Northern-grown Chinese Elm at greatly reduced prices for quick sale. These trees are grown right. Properly trimmed, good caliper and splendid root system.

Quantity	Size	Each
2000	5 to 6 ft.	\$0.20
1750	6 to 8 ft.	.30
2000	8 to 10 ft.	.40
1500	1 1/2 to 2 -in. Cal.	.65
750	2 to 2 1/2 -in. Cal.	.90
150	2 1/2 to 3 -in. Cal.	1.25
75	3 to 4 -in. Cal.	2.00
75	4 to 4 1/2 -in. Cal.	3.00
50	4 1/2 to 5 -in. Cal.	4.00
50	5 to 5 1/2 -in. Cal.	5.00
25	5 1/2 to 6 -in. Cal.	6.00

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Let us quote on your requirements

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Evergreens—Shrubs
Lining-out Stock
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Complete Line of

SMALL FRUIT PLANTS

Specializing in Grapevines, Currants,
Raspberries, Blackberries, Boysenber-
ries, Strawberries, Rhubarb, Asparagus.
Send for wholesale price list.

L. J. RANDO'S WHOLESALE NURSERIES
Bridgman, Michigan

ment work. Whether or not there has been previous cutting, sprouts that develop after fires arise mostly at low points on stumps, because fires kill the higher buds.

In sprout stands, George H. Hep-
ting, associate pathologist of the fed-
eral division of forest pathology,
urges in a technical note, "Emphasis
should be put on favoring sprouts
from small stumps and on providing
adequate spacing between stems. The
optimum period for clump reduction
is when a stand is between 8 and 15
years old. If, during this period,
adjacent competing sprouts on a
given stump are reduced in number
so that only one or two well sepa-
rated sprouts of low origin remain, a
well spaced stand of fairly rot-free
stems should result." L. R. T.

EASTERN NOTES.

Turner Bros. Nursery, West Long
Branch, N. J., reports landscape
orders better this year than for sev-
eral seasons. The two Turner boys
and Mr. Turner, Sr., are preparing
to exhibit a garden at the New York
flower show in March, 1941, as they
have in years past.

Stock in the fields of the Witten-
berg Nurseries, Long Branch, N. J.,
looks fine and plentiful. The two
brothers have been working busily
filling orders and planting stock.

Baier Lustgarten, 159-18 Northern
boulevard, Flushing, L. I., N. Y., has
just purchased 160 acres on Jericho
turnpike, Middle Island, L. I. This
tract of land will be planted to nur-
ery stock. Propagating is being done
in his Flushing greenhouses. Mr.
Lustgarten did the landscape work at
the world's fair at the Florida, White
Owl, Iceland, Cuban and Porto Rican
buildings. M. F.

HENRY LOHSE has purchased
the interest of Ulrich Zuend in the
Zuend & Lohse Nursery Co., Dixon,
Ill., and is now operating as Henry
Lohse's Nursery.

RAIN in northeastern Iowa has
been abundant this season, though
drought is reported in other places in
the midwest. The local weather bureau
at Charles City reported over twenty-
three inches of rainfall between July
1 and October 15. Stock being dug
at the Sherman Nursery Co. is in
excellent condition as a result.

CARLOAD LOTS

ELM, American, Moline and Vase,
up to 4 ins. All transplants.

MAPLE, Norway, up to 3 1/2 ins.
Transplants, extra select, spaced
7x7 ft.

POPLAR, Lombardy, up to 2 ins.

WILLOWS, Thurlow, up to 3 ins.

BARBERRY, Thunbergii, up to 2 to
3 ft.

SPIR/EA, Vanhouttei, up to 5 to 6 ft.

APPLE, 2-year.

CHERRY, 1-year.

PEACH.

All of above items can be supplied
in carload lots.

Send for list on many other items.

C. M. HOBBS & SONS, INC.
Bridgeport, Indiana

Largest Nursery in Indiana. Est. 1875

Apple and Peach Trees In Carload Lots

A long variety list to select from.
We also can offer other Fruit Trees
in carload lots, as well as Tennessee
Natural Peach Seeds.

If you are interested in either Fruit
Trees or Peach Seeds, send us your
want lists and we will quote attractive
prices.

SOUTHERN NURSERY CO.
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Hickory, N. C.

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Our Pits Compare Favorably
With the Best

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HOGANSVILLE, GEORGIA

We offer our usual supply of Fruit
Trees, Ornamentals, Shade Trees and
Nut Trees, Pecans and Spanish
Chestnuts.

Send us your want list.
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Decherd, Tenn.

KERRIA JAPONICA

Double Flowering
Largest Stock in America.

The Willis Nursery Company
Progressive Nurserymen Ottawa, Kans.

Coming Events

ON THE CALENDAR.

Itineraries to cover some of the important state and regional meetings the coming winter will soon be made by the nurserymen who travel to them. To assist those individuals, secretaries of state associations are invited to send announcement of date and place, so that it may be included in the next issue along with the following events on the trade calendar:

December 18, Northern Retail Nurserymen's Association, Lowry hotel, St. Paul.

December 19 and 20, Minnesota State Nurserymen's Association, Lowry hotel, St. Paul.

January 14 to 16, Illinois State Nurserymen's Association, Hotel La Salle, Chicago.

January 22 and 23, Oklahoma State Nurserymen's Association, Hotel Huckins, Oklahoma City.

January 27, Kentucky State Nurserymen's Association.

January 21 to 23, Michigan Association of Nurserymen.

February 5 and 6, Pennsylvania Nurserymen's Association, Roosevelt hotel, Pittsburgh.

ILLINOIS TWENTY-FIFTH.

Plans are under way for the twenty-fifth annual convention of the Illinois State Nurserymen's Association, to be held at the Hotel La Salle, Chicago, January 14 to 16, 1941. There will be a program each afternoon, but no morning sessions. The board of directors has tentatively decided to drop the trade exhibits for this year, announces Secretary Miles W. Bryant, but the east exhibit hall on the mezzanine floor will be equipped as a special lounge room for nurserymen.

WESTERN PENNSYLVANIA.

The Western Pennsylvania Nurserymen's Association will hold its fall meeting at 3 p. m., November 19, at the Hotel Schenley, Pittsburgh.

A short business meeting is scheduled, including election of the board of directors. Nationally known speakers will discuss soil sterilization by the use of chloropicrin, building and treatment of fine turf and the use of plant material in landscape design.

Dinner will be served at 6:30 p. m. and there will be an after-dinner, speaker of merit. All members of the trade and their friends are invited.

L. E. Wissenbach, Sec'y.

PENNSYLVANIA DATES.

The winter meeting of the Pennsylvania Nurserymen's Association will be held February 5 and 6, 1941, at the Roosevelt hotel, Pittsburgh, announces J. F. Styer, president.

OKLAHOMA DATES SET.

The winter meeting of the Oklahoma State Nurserymen's Association will be held at the Huckins hotel, Oklahoma City, January 22 and 23.

Reservations for exhibit space should be sent to the secretary, J. A. Maddox, Route 2, Oklahoma City, who writes that advertisers in the booklet containing the program will be given display space at no additional charge.

SHADE TREE PROGRAM.

The fifteenth annual meeting of the New Jersey Federation of Shade Tree Commissions will be held Tuesday, November 26, at the Log Cabin, on the grounds of the New Jersey agricultural experiment station, at New Brunswick. Registration will begin at 9:30 a. m., and the first paper will be presented at 10:30. A buffet lunch will be served at the Log Cabin, and the annual banquet will be held at the Roger Smith hotel, New Brunswick, at 7 p. m. The total cost including registration, lunch, banquet and copy of proceedings will be \$2.50. The program is as follows:

"Increasing Root Penetration," by Dr. O. W. Davidson, New Jersey agricultural experiment station.

"Columnar Types of Trees for Street Use," by Fred S. Eaton, city forester, New Haven, Conn.

"Last-minute Information Regarding the London Plane Disease," by Dr. J. M. Walters, bureau of plant industry, United States Department of Agriculture.

"Insecticide Briefs," by Dr. C. C. Hamilton, New Jersey agricultural experiment station.

"Flowering Trees Suitable for Street Planting," by Samuel N. Baxter, landscape gardener, Fairmount park, Philadelphia, Pa.

"Pros and Cons of Vitamins," by Prof. Roaains, New Jersey agricultural experiment station.

"Better Ornamental Plants and Their Uses," by Ben Blackburn, extension specialist, New Jersey agricultural experiment station.

"New Jersey's Certified Tree Expert Law," premier announcement of the tree examining bureau, by Winston E. Parker, Moorestown, N. J.

Round-table discussion of shade tree commissioners' problems, led by Dr. P. P. Pirone, New Jersey agricultural experiment station.

Annual business meeting and election of officers.

Annual banquet, with Dr. Samuel Steinmetz, Trenton, N. J., as speaker.

LOS ANGELES ROSE NIGHT.

The Southern California Horticultural Institute's annual rose night was held October 17 at the Mayfair hotel, Los Angeles, with an attendance of 150 members and guests. William B. Early, president, presided and introduced Fred Howard, of Howard & Smith, Montebello, and Mrs. James Whitehorn as speakers.

Mr. Howard discussed the American trial roses and how roses are introduced to the public, bringing out the fact that there are two trial gardens in southern California. Mrs. Whitehorn is one of the speakers sponsored by the institute's speakers' bureau, and her talk on "The Romantic History of Roses" was entertaining.



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Specializing in

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Hawthorns—European and Oakleaf
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Minimize Freight Costs.

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Fruit, Nut, Shade Trees, Ornamental,
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LIST SENT ON REQUEST.

ROSEBUSHES

200 Varieties

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PACIFIC NORTHWEST ROSE NURSERY
Box 261 Wholesale Only Graham, Ore.

Rose displays included nearly 100 varieties. William Clark commented on the Germain Seed & Plant Co.'s exhibit from its San Fernando valley nursery. John van Barneveld, of California Roses, Inc., Puente, presented a large collection. Cecil Herrin, of the Armstrong Nurseries, Ontario, spoke on their presentations, and Peter Mordigan, of Mordigan's Evergreen Nurseries, San Fernando, made a short talk on rose culture.

WASHINGTON NOTES.

T. Balzarani, Five Corner Nursery, Seattle, has completed an extensive addition to his greenhouse.

After fifteen years' operating a display room in the Rhodes department store, R. R. Williams, Puget Sound Nursery, Tacoma, has discontinued it. An attractive whitewashed brick, shake-roof display building is being erected on the edge of the nursery on the Mount Rainier highway.

Charles Pierce, State Flower Nursery, Bothell, has completed a large conditioning room and a huge sterilizer. A carload of azaleas is being packed and shipped to the south. A new type of wire for heating areas of coldframes is being tried.

Washington nurserymen are highly gratified with the fall activity and the splendid outlook for 1941. There is a scurrying over the country to complete their broken lines.

James H. McCabe, the genial manager of the Pennsylvania hotel, New York, who looked after the comfort of the nurserymen during their convention, spent several days at Seattle lately.

More than fifty members of the Olympia rhododendron committee are planning for rhododendron planting day, December 5, when Olympia residents will be asked to plant at least one rhododendron each. The committee has begun distributing 10,000 cards, which residents are asked to sign and thereby pledge they will make a planting of the state flower.

The Seattle park board has ordered extensive landscaping of three park areas. Areas to be improved are the Duwamish Head park, Ravena park and that portion of the west shore of Green lake that flanks Aurora avenue. Ravena park work will be of major proportions and calls for construction of a cascade creek bed which will provide the waterfall in the creek that runs through the park.

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Flowering Ornamental Trees
Shade Trees
Roses

Grown right and packed right.

Combination carloads to Eastern
distributing points will save you
on freight.

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ORENCO, OREGON

WHOLESALE

THANKS for your orders the past season. We appreciate the business you have given us and shall look forward with pleasure to serving you again.

CUTLEAF WEEPING BIRCH A SPECIALTY

1 and 2-year-old, from 3 to 4 feet to
12 to 14 feet.

Also

European White Birch and Other
Shade and Flowering Trees, Shrubs,
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Manetti Fruit Trees
Seedlings: Fruit and Shade

CARLOT advantages to the east and
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BEAUTIFY YOUR HOME

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ESPALIER
Fruit Trees

Apples, Pears, Plums,
Cherries, Peaches, Apricots.

Instructions on care of Espalier "Vine"
Fruit Trees sent with each purchase.

Write for catalogue and price list.

Order Now for Fall Delivery.

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Rich & Sons Nursery

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FRUIT TREES

Ornamental Trees Shrubs

Catalogue on request

MAHALEB SEED

Fresh, local-grown, high
germination. Supply limited.

WASHINGTON NURSERIES

Toppenish, Wash.

New Books and Bulletins

"GROW YOUR OWN FRUIT."

M. G. Kains has recollection of the delicious and varied fruit in the family orchard in boyhood days, an orchard for the enjoyment of the family and the neighbors, and he has written "Grow Your Own Fruit," a book of 434 pages recently published by Charles Scribner's Sons, at \$3.50, to instruct the amateur who is interested in a few fruit trees or berry bushes in the home grounds, or in a modest orchard. While references are made to practices by commercial fruit growers, this book is not for them.

Studying, teaching and writing about horticulture for a lifetime, M. G. Kains has been able to pack a large amount of pertinent information into this book. Successive chapters go into details on soils, buying and handling stock, planting an orchard, training and pruning trees, bush and cane fruits, dwarf fruit trees, pruning tools, control of insects and diseases, grafting and budding and storage of fruit. These chapters occupy somewhat more than the first half of the book, while the remainder is devoted to a directory of fruits for American gardens, in which information is given as to varieties and the particular needs of a long list of fruits and berries.

"BETTER LAWNS."

Those readers who have had the privilege of hearing Howard B. Sprague talk on lawns, turf and grasses will welcome the news that he has prepared a book on the subject under the title, "Better Lawns," selling at \$2, the latest in the Whittlesey House garden series edited by F. F. Rockwell and published by the McGraw-Hill Book Co.

For thirteen years Howard B. Sprague has been agronomist at the New Jersey agricultural experiment station and professor of agronomy in Rutgers University. His research in grasses has made him known throughout the country.

In addition to the information which one would expect to find in such a book, it contains discussion of the natural laws affecting growth of grasses as a basis for the rules of procedure given. The difference between the behavior of lawn grasses

and that of flowers and shrubs is given, so that intelligent differentiation may be made in their treatment by the amateur or professional lawn builder.

Of particular interest to the latter are the instructions and sketches for identification of the various grasses by leaf and stem characters. The man who is called upon to prescribe for the renovation of old lawns particularly will find enlightening data in this portion of the book.

Thorough directions are given as to soil preparation and fertilization, as well as regular management practices in order to ensure the best results in lawn making, whatever the conditions. Included are a chapter on soil acidity and liming and another on soil humus and the use of organic materials.

The research that has been done in recent years is reflected in the chapters on special turf problems and renovating poor turf, on controlling weeds in lawns and on controlling diseases and insect enemies of turf.

PLANTING STUDY COURSE.

Novel in form and presentation, "Plantings for Florida Homes" is the first of a series of correspondence courses offered by the University of Florida designed for adults who are interested in out-of-school study for information and culture. It was written by John V. Watkins, assistant professor of horticulture, under the supervision of Mrs. Edith

McBride Cameron, head of women's activities in the general extension division of the university.

The volume consists of sixty-five pages in a large substantial ring binder. This makes it possible to incorporate with the pages of text, which are concise and well illustrated, work sheets on which plans may be drawn and questions answered. Several symbol sheets are provided, with representations of trees, shrubs, etc., for a landscape plan stamped for cut-outs. Plant material lists are included for northern, central and southern Florida.

B. C. Riley, dean of the extension division, states: "This course is intended for the amateur gardener, who has every right to be impatient of the endless amount of writing involved in the ordinary correspondence course and who has probably no training in drafting. Various unusual devices have been included in the book to minimize the amount of tedious study and to afford maximum opportunity for creative work. Notice, particularly, the symbol sheets and their use, the summarizing true and

ROCKY MOUNTAIN EVERGREEN TREE SEEDS

PICEA FUNGENS, Colorado Blue Spruce.
PICEA ENGELMANNII, Engelmann's Spruce.
PICEA DOUGLASHII, Douglas Fir.
ABIES CONCOLOR, Colorado Silver Fir.
PINUS PONDEROSA, Yellow Pine.
JUNIPERUS SCOPULORUM, Silver Cedar.

Prices to the Trade are now ready.

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YUNNAN—U.S.D.A.—S.P.I.55885
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Germination Guaranteed.

Our seed orchard is properly isolated to prevent cross-pollination with commercial varieties.

Standard Yearling and June Bud trees on Shalil Root Stocks, for delivery from California and from Alabama.

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Mahonia Aquifolium

	Per 1000
12 ins. and up.....	\$25.50
10 to 12 ins.....	20.50
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6 to 8 ins.....	15.50
4 to 6 ins.....	12.75
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2 ins.....	7.75
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Orders must include at least 2 sizes.	
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Cash with shipping order; no discounts.

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false questions and the model plans. Please notice, too, that upon completion of the course, the student will have worked out for himself an approved landscape design for his own home, or any property he chooses."

Because of its brevity and simplicity, this guide will in no sense prepare anyone broadly enough to engage in commercial landscape design. It should assist those Florida homeowners who are interested in planting according to plan, rather than hit or miss. While the book was prepared with the Florida gardener in mind, the material is applicable to the lower south. The course sells at \$7.

BULLETINS RECEIVED.

"The Cranberry Rootworm as an Apple Pest," by S. W. Harman, bulletin 692 of the New York state agricultural experiment station, Geneva, contains the conclusion that two sprays of lead arsenate, the first applied when the beetles first appear in the orchard and the second about ten days later, provide adequate protection to avert the attacks of this pest on fruit and foliage of apple trees during late June and July.

COLLEGE ARBORETUM.

The Slayton Arboretum, Hillsdale College, Hillsdale, Mich., is briefly described in a 16-page pamphlet, issued by the department of biology. The beautiful illustrations show remarkable progress in building, in not much more than a decade and within the limited means of a small college, an arboretum which has the enthusiastic support of the students and affords them unusual features for study and recreation.

WANTS CATALOGUES.

In order to continue his "check list of ornamental trees and shrubs procurable in the United States," request for catalogues from this country comes from W. Newlon Green, architects' branch, public works department, Treasury Gardens, Melbourne, C. 2, Victoria, Australia. His work is to provide landscape plans and plant lists for the grounds about new and improved state buildings in Australia, as well as for many municipal buildings in the provincial centers. He asks interested nurserymen to place his name on their lists.

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Fine Bluegrass LAWN SOD

4c per sq. ft. in truckload lots of 1,500 ft.

Delivery charge \$15.00 per 100 miles. Practical delivery range—300 miles.

WM. A. REED—Sod Specialist

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Washington Creeping Bent Sod, 50c per sq. yd. at nursery. Delivered in truck lots of 170 sq. yds., \$15.00 per 100 miles.

Azalea Mollis, L.O., 3 to 6 ins., \$60.00 per 1000; 6 to 9 ins., \$90.00 per 1000.

Write for prices on Daphne Cneorum, B&B.

Wanted: Evergreen L.O. stock in exchange for Azalea Mollis, L.O.

Joseph P. Youdath Nurseries
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North Dakota and Montana Seeds JUNIPERUS SCOPULORUM

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SOILMASTER Superior PLANT FOOD—

Natural Vitamin B₁ Content in High-Grade Humus Mixture. Soilmaster's Natural Bacteria, Hormones and Vitamin B₁ content is nature's way of feeding plants. Holds 7 times its weight in moisture—feeds plants throughout growing period. Clean, odorless and will not burn. ORDER FOR FALL BULBS and OTHER PLANTINGS NOW!

100 lb. bag, F.O.B. Berrien Springs, Michigan.....\$1.00 per bag
Up to 19 bags, F.O.B. Berrien Springs, Michigan..... .95 per bag
20 to 199 bags, F.O.B. Berrien Springs, Michigan..... .85 per bag

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Same as Soilmaster except it is sour; used for acid-loving plants such as blueberries, rhododendrons, evergreens, etc.

Special Catalogue Offer!

You do not have to stock a single bag or spend one cent! We furnish mats or cuts for your catalogue—give you a special discount—and do all the work. Give Soilmaster a little space in your catalogue—and watch your profits climb!

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Also—Soilmaster Michigan Peat, finely ground, strongly acid, pH about 3.5. Ideal for acid-loving plants and for mulching purposes.

Write Today to Department N.

The SOILMASTER Company Berrien Springs, Michigan

CAMPISIS MADAME GALEN.

It is with real pleasure that I find the front page of your number of October 15 devoted to one of our best climbing vines, Bignonia Madame Galen. But why the name under the picture—Campsis Tagliabuana Madame Galen? While it may be correct botanically, do you expect the trade to adopt it in current offers? I believe that names as popular and as easy to remember as bignonia should be kept.

Also, I wonder if the picture you are using is Bignonia Madame Galen. From the habit of the bush and the form and size of the flowers, I feel satisfied that it is Bignonia grandiflora. The variety Madame Galen is not so shrubby in growth; it is a true vine.

Regarding propagation, I fail to agree with the writer, who suggests seed reproduction. I am much afraid that the result would be nothing else but the true radicans. I have known both varieties of bignonia since my childhood, not only in this country, but also in many parts of Europe, and I do not know of any dependable nurseryman propagating either of them by any method other than that of layering or grafting.

Regarding the hardiness of Bignonia grandiflora, I do not know to what part of the country the writer of your article refers, but I know of a good-sized hedge of Bignonia grandiflora which I planted at Riverton, N. J., more than fifteen years ago, which has stood ever since and has bloomed freely since it was planted.

Jacques L. Legendre.

In nomenclature, a trade publication should be botanically correct, re-

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gardless of whether the nurserymen see fit to follow it or not. Since Rehder has definitely changed nomenclature to follow that used by other botanists for some time, and since Standardized Plant Names no doubt will use the generic name campsis, I believe this should be followed in a publication of this type.

The picture published was felt to be typical of the variety Madame Galen. Possibly Mr. Legendre's feeling that it is grandiflora is just as correct as my belief. However, I have seen the variety Madame Galen growing in distinct bush form where it is given some pruning.

Regarding propagation, Mr. Legendre is perfectly right that the best methods to follow are layering and grafting, and that should have been mentioned in my comments. However, I have seen a number of cases in which the variety was propagated from seeds, and the practice was mentioned simply because it was cheaper and a proportion of the plants will come true to form from seeds.

Regarding hardiness, Rehder lists Campsis grandiflora as being hardy in zone 7. Ohio is practically all in zone 5. New Jersey is mostly in zone 6, but zone 7 touches the southern end. This probably explains why

Campsis grandiflora is apparently hardy at Riverton, N. J.

L. C. Chadwick.

SALE of Hood Acres, the delphinium nursery between Parkrose and Troutdale, Ore., has been made by Charles F. Barber to Albert McKay.

THE planting of modern roses sponsored by the Jackson & Perkins Co., Newark, N. Y., will be retained permanently in the Flushing Meadow park at the conclusion of the world's fair, as a gift to the city of New York. Eight thousand plants comprise this group. Charles H. Perkins has notified Park Commissioner Moses that his firm will continue sending noteworthy new roses from its research department without charge.

THE number of nurseries inspected in Connecticut in 1939 was 399, a decrease of three since 1938. Thirty new nurseries were reported, and thirty-three had discontinued operation, reports M. P. Zappe. Their total area is 4,833 acres, a decrease of 198 in the year. Nurseries of fifty acres or more numbered eighteen; those from ten to forty-nine acres, forty-four; five to nine acres, thirty-three; two to four acres, ninety-six, and one acre or less, 208.

PINUS MUGO MUGHUS.

Pinus mugo mughus, the mugo pine, is so prevalent that a few brief notes cannot add much to the common knowledge of the plant. According to botanical authorities, this variety is described as a prostrate shrub native of the eastern Alps and Balkan peninsula. It is an exceptionally variable type, and the forms common to the trade vary in their usefulness.

The dwarf, rounded forms seem to be most in demand, and it is desirable that the especially desirable forms be selected and propagated vegetatively by grafting or possibly from cuttings. Two such named forms are the varieties *compacta* and *slavini*. The former is almost globose in shape, with slender bright green leaves, and the latter is a low-spreading form with erect branches, originating at Rochester, N. Y., and named for B. H. Slavin, the superintendent of parks of that city.

The mugo pine does well under adverse conditions of poor soil and climate conditions. It is frequently used in congested areas of cities with fairly good success. Of course, as with any other plant, the more favorable the conditions the better growth it will make. The most serious pests are the pine-leaf scale, which can be controlled by the usual dormant oil spray or with nicotine sulphate when the young hatch, and the Zimmerman pine-shoot moth, for which a satisfactory control measure has not been developed.

The mugo pine is used in the foundation planting, where its low formal habit shows to advantage, and in beds and rock gardens. I should like to stress again the importance of selecting and propagating vegetatively the better forms of this plant.

L. C. C.

CATALOGUES RECEIVED.

[In writing for a copy of any of the catalogues reviewed below, please mention that you saw it described in the *American Nurseryman*.]

Eastern Shore Nurseries, Inc., Easton, Md.—Retail price list of general line of stock, 40 pages and cover, 4x9 1/4 inches.

Storrs & Harrison, Inc., Painesville, O.—Retail catalogue of general line of stock, illustrated, 32 pages and cover, 6 1/2 x 9 1/2 inches.

Blackwell Nurseries, Semmes, Ala.—Wholesale price list offers mainly azaleas and camellias, 16 pages and cover, 4x9 inches.

Southside Nurseries, Richmond, Va.—

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Price list of general line of stock, 20 pages and cover, 4x9 inches.

Paul J. Howard's California Flowerland, Los Angeles, Cal.—Fall price list of bulbs, 24 pages and cover, 4x9 inches.

Krieger's Wholesale Nursery, Bridgman, Mich.—Wholesale price list of small fruits, asparagus and rhubarb, 4 pages, 6 1/4 x 8 inches.

Baker Bros. Nursery, Fort Worth, Tex.—Wholesale price list of general line of stock, 36 pages and cover, 5 1/4 x 6 3/4 inches.

Buntings' Nurseries, Inc., Selbyville, Del.—Wholesale price list of general line of stock, 36 pages and cover, 4x9 inches.

Kingsville Nurseries, Inc., Kingsville,

Md.—Wholesale list of general stock, including rare and unusual plants, 32 pages and cover, 4x9 inches.

Twitty Nursery Co., Texarkana, Tex.—Trade list of general assortment of stock, 36 pages and cover, 4x9 inches.

Sherwood Nursery Co., Portland, Ore.—Wholesale list of lining-out stock, featuring mainly evergreens, 40 pages and cover, 5 1/2 x 8 inches.

Kelsey Nurseries, St. Joseph, Mo.—Fall trade list of complete assortment of stock, 32 pages, 6x9 inches.

Hillmeyer Nurseries, Lexington, Ky.—Retail list of general line of stock, profusely illustrated, partly in color, 32 pages and cover, 8x10 3/4 inches.

ROSE SOCIETY MEETING.

President L. M. Massey, Vice-president L. C. Fischer, Treasurer S. S. Pennock and Secretary R. Marion Hatton were reelected for 1941, and Dr. Charles V. Covell, Oakland, Cal.; Dr. T. Allen Kirk, Roanoke, Va.; C. R. McGinnes, Reading, Pa., and E. A. Piester, Hartford, Conn., were elected trustees for the term expiring 1943, at the annual meeting of the American Rose Society, held at Oklahoma City, Okla., October 20 to 22. Registration included 188 persons from twelve states.

High lights of the meeting were the addresses. Dr. Earl J. Hamilton, of Duke University, compared American and European rose culture. Dr. L. M. Massey, of Cornell University, discussed the epidemiology of rose diseases. Dr. H. R. Rosen, of the University of Arkansas, had as his topic, "Some Requirements of Roses Under Oklahoma and Arkansas Conditions." Dr. J. C. Ratsek, of the Texas agricultural experiment station, explained certain factors affecting color in roses. Dr. R. C. Allen, of Cornell University, gave new viewpoints on rose growing. H. L. Daunoy, of New Orleans, attempted to solve rose problems through soil amendments. Fred Walters, president of the Pacific Rose Society, La Canada, Cal., discussed "New Roses." Mrs. Clifford B. Smith, Kansas City, Mo., told of development of the municipal rose garden there. C. A. Birge told how to make and grow own-root roses.

Motion pictures shown by Captain J. Calvin Frank, park commissioner of Harrisburg, Pa., traced the making of the municipal rose garden there. Fred W. Walters showed pictures in color of roses in California. Eugene S. Boerner, Newark, N. Y., showed pictures of roses and gardens seen when he visited European hybridizers two years ago.

October 20, the municipal rose garden in Will Rogers park was dedicated, with J. Henry Johnson, president of the Oklahoma Rose Society, as master of ceremonies.

The society voted \$100 to the Charles H. Totty memorial. The trustees voted not to recognize the word "floribunda" as a class of hybrid roses.

While roses were not at their best, the show held at the Skirvin Tower hotel was pronounced the most beau-

tifully staged show the members had seen. The Nicholson bowl was won by C. T. Baker, of the Oklahoma Rose Society, with a vase of Hinrich Gaede, Margaret McGredy, Pink Dawn and Rex Anderson. Mrs. T. J. Wilson won the silver medal certificate with a bloom of National Emblem and the bronze medal certificate with a bloom of Columbia.

R. Marion Hatton, Sec'y.

HOME BUILDING STILL UP.

The rate of residential construction activity is holding so high that optimistic nurserymen are supported in their expectation of a busy autumn and spring. Home construction this fall and winter should exceed the spring peaks by a wide margin and establish the best seasonal records in a decade.

Although residential construction awards usually fall off from August to September, the volume this year was little changed, according to the New York Journal of Commerce. September witnessed the highest monthly volume of residential construction awards since July, 1929. They were eighteen per cent higher than the same months in 1939, when the peak for that year was reached, and ten per cent higher than the spring peak of last May.

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Peonies: Tree and Herbaceous, best varieties. Oberlin Peony Gardens, Sinking Spring, Pa.

Spiraea Vanhouttei, 3-yr., 2 to 3 ft., \$5.00; 3 to 4 ft., \$6.00. Spiraea A. Waterer, 3-yr., 18 to 24 ins., \$9.00; 2 to 3 ft., \$10.00 per 100. W. M. Divine Nurseries, Geneva, N. Y.

CEDAR SHINGLE TOW. Baled, in carlots, F. O. B. Virginia Mill, \$7.00 per ton. WAYNESBORO NURSERIES, INC., Waynesboro, Va.

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MOUNTAIN ASH. Twice transplanted, 4 to 5 ft., \$30.00 per 100; 5 to 6 ft., \$40.00 per 100. Write for trade list. PEQUOT NURSERY, PEQUOT LAKES, MINN.

SEEDLING ROOTSTOCKS. We have unplaced: 25,000 yearling Peach, 5,000 Pecan and Walnut, 50,000 Multiflora Rose cuttings and 4,000 2-year-old Grape. Write for prices on quantity lots. MEFFERD NURSERY, STEPHENVILLE, TEX.

BUDDLEIA. Ile de France, Hartwegi and Dubonnet, 2-yr., No. 1, \$15.00 per 100; 2-year, medium, \$12.00 per 100. Write for complete price list. WAYNESBORO NURSERIES, INC., Waynesboro, Va.

FLOWERING TREES. Per 10. Cornus Florida Rubra, BR, 2 to 2 1/2 ft., \$6.00. Cornus Florida Rubra, BR, 3 to 3 1/2 ft., \$8.00. Dbl. Red-flw. Peach, 3 to 4 ft., \$2.00. Dbl. Red-flw. Peach, 4 to 5 ft., \$3.00. Dbl. Red-flw. Peach, 5 to 6 ft., \$4.00. Prunus Pissardi, same sizes and prices as Flowering Peach. Cash. Free packing. PIKE NURSERIES, HOPKINSVILLE, KY.

BARBERRY THUNDERGILL. 4-yr., transplanted, heavily branched. 18 to 24 ins., \$10.00 per 100; 2 to 3 ft., \$15.00 per 100. WAYNESBORO NURSERIES, INC., Waynesboro, Va.

PHILADELPHUS VIRGINALIS. 18 to 24 ins., \$1.75 per 10, \$15.00 per 100. 2 to 3 ft., \$2.50 per 10, \$20.00 per 100. 3 to 4 ft., \$3.00 per 10, \$25.00 per 100. SOUTHSIDE NURSERIES, Richmond, Va.

NEW HARDY PLANTS. Per 10 Per 100. Dianthus Silvermine, new white sport of Beatrix, strong, 2 1/2-in. pots, \$2.50 \$18.00. Dianthus Little Joe, crimson novelty, blooms all summer, 2 1/2-in. pots, 1.80 15.00. Geum Red Wings, field-grown, 2.50 Astilbe Fanal, field-grown, 4.00 Santolina Veridia, field-grown, 1.50 12.00. Helopsis Incomparabilis, field-grown, 1.80 15.00. Helopsis Patula, field-grown, 2.50 Helenium Braungold, field-grown, 2.50 Helenium Peregrinum, field-grown, 2.00 18.00. Oenothera Illumination, field-grown, 2.00 Oenothera Yellow River, field-grown, 2.00 NORWALK PERENNIAL GARDEN, Main Ave., Norwalk, Conn.

SHADE TREES. Size Per 10 Per 100. American White Ash, 8 to 10 ft., \$8.50 \$75.00. European Mountain Ash, 6 to 8 ft., 10.00 90.00. American Elm, 8 to 10 ft., 6.50 60.00. Chinese Elm, 8 to 10 ft., 10.00 90.00. Flowering Crab, 4 to 6 ft., 5.00 45.00. Jap. Flowering Cherry, 4 to 5 ft., 11.00 100.00. Koelreuteria, 8 to 10 ft., 16.50 150.00. Norway Maple, 2 to 2 1/2-in. cal., 22.50 200.00. Mimosa, 6 to 8 ft., 10.00 90.00. Pin Oak, 2 to 2 1/2-in. cal., 25.00 225.00. Lombardy Poplar, 8 to 10 ft., 3.50 30.00. Black Walnut, 6 to 8 ft., 6.00 Willow, Weeping, 6 to 8 ft., 6.00 55.00. Other sizes and varieties quoted on request. WAYNESBORO NURSERIES, INC., Waynesboro, Va.

SHRUBS. Size Per 10 Per 100. Bush Honeysuckle, 2 to 3 ft., \$1.20 \$10.00. Bush Honeysuckle, 3 to 4 ft., 1.75 15.00. Calycanthus, 2 to 3 ft., 2.00 17.50. Forsythia Spectabilis, 3 to 4 ft., 1.50 12.00. Forsythia Spectabilis, 3 to 4 ft., 2.00 17.50. Hydrangea P. G., 2 to 3 ft., 2.25 20.00. Japanese Quince, 18 to 24 ins., 1.50 12.00. Mock Orange, 2 to 3 ft., 1.50 10.00. Lombardy Poplar, 8 to 10 ft., 1.75 15.00. Pearl Bush, 3 to 4 ft., 2.00 17.50. Snowball, Japanese, 2 to 3 ft., 2.75 25.00. White Fringe, 3 to 4 ft., 4.00 35.00. Winterberry, 3 to 4 ft., 4.50 40.00. Write for complete wholesale list. WAYNESBORO NURSERIES, INC., Waynesboro, Va.

HARDY PERENNIALS. 2-yr., field-grown, 75c per 10, \$6.00 per 100. Achillea Millefolium, Hibiscus, mixed, Kelwayi, Hollyhock, mixed colors, Anchusa Italica, Phlox Ferdinand Cortes, Aquilegia Mrs. Scott, Phlox Subulata, asst. Elliott's, varieties, Artemisia Silver King, Physostegia Virginiana, Aster Tartaricus, Vivid, Baptisia Australis, Platycodon, blue and Cerastium Tomentosum, white, Chrysanthemums, as-sorted varieties, Poppy, Oriental, Primula, Delphinium Chinese, Fyretum, mixed colors, Sedum, asst. varieties, Hybrids, Stokesia Cynane, Dianthus Rose Cushion, Veronica Longifolia, Eupatorium Celestinum, Veronica Rupestris. WAYNESBORO NURSERIES, INC., Waynesboro, Va.

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THE NURSERY MANUAL, by L. H. Bailey. \$3.50.

MANUAL OF CULTIVATED TREES AND SHRUBS, by Rehder. \$10.50.

TREES IN WINTER, THEIR STUDY AND IDENTIFICATION, by A. F. Blakesley and C. D. Jarvis. \$2.00.

ESTIMATING CHARTS, by John Surtees. \$2.00.

ROCK GARDEN AND ALPINE PLANTS, by Correvon. \$3.50.

THE BOOK OF SHRUBS, by A. C. Hottes. \$3.00.

HILL'S BOOK OF EVERGREENS, by L. L. Kumlien. \$3.50.

PLANT PROPAGATION FOR THE GARDEN, by Fairburn. \$1.00.

MODERN NURSERY, by A. Laurie and L. C. Chadwick. \$5.00.

MANUAL OF TREES OF NORTH AMERICA, by C. S. Sargent. \$5.00.

NURSERY COST FINDING, by John Surtees. \$7.50.

HARDY SHRUBS, by Frank A. Waugh. \$1.25.

PROPAGATION OF PLANTS, by Kains & McQuesten. \$3.50.

MANUAL OF TREE AND SHRUB INSECTS, by E. P. Felt. \$4.00.

INSECT ENEMIES OF SHADE TREES, by Herrick. \$5.00.

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SOUTHWESTERN NEWS.

D. R. Roland is manager of a new business enterprise known as Arthur's Flowers, Blackwell, Okla. A landscape business will be operated in connection with the flower shop. The formal opening of the new building, which houses an office, display room and conservatory, was held early last month.

Tom Rogers, proprietor of the Winfield Nurseries, Winfield, Kan., visited nurseries at Beatrice, Neb.; Hamburg and Shenandoah, Ia.; St. Joseph, Mo., and Ottawa, Kan., during the middle of October.

George W. Kinkead, secretary of the Kansas State Horticultural Society, reports that an interesting program is being arranged for the annual meeting of the society, to be held at the chamber of commerce building, Kansas City, Kan., December 5 and 6.

Joseph Falt, representing the Chase Nursery Co., Chase, Ala., is on a fall trip through the middle west. The spirit of optimism he is encountering among nurserymen is reflected in the amount of business he is booking. Mr. Falt, a reserve officer in the navy, spent a month recently on patrol duty in the Atlantic on one of the "obsolete" destroyers since turned over to Great Britain.

The following program has been arranged for the fourth annual school for nurserymen, to be held at Manhattan, Kan., in December: "Sales Promotions," by C. K. Ward, department of economics and sociology; "Why the Nurseryman Is Interested in Soil Texture," by Prof. R. J. Barnett; "The Beautification Project of the Kansas Industrial Development Commission," by Mrs. Renna Hunter; "Rodent Control," by R. C. Johnson, and "Broad-leaved Evergreens," by John J. Pinney.

An article in the November issue of Better Homes and Gardens is of interest to midwestern nurserymen since it concerns Lewis Walmsley, now a grower of ornamental cacti near La Jolla, Cal., but formerly of Kansas City, where he managed the Heart of America Nursery and was a city park executive in charge of trees and shrubs.

H. D. Fritzell, Larned, Kan., is starting a nursery business, selling through catalogues and from a sales yard.



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"double-play" for profits is as an all-
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M. S. Davey, president of the
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humus. Results following its use have
been uniformly satisfactory and at
times quite amazing."

The Soilmaster Co., Berrien Springs,
Mich., also produces Sodus-acid hu-
mus, which is similar to Soilmaster in
all respects except that it is sour, while
Soilmaster is sweet, and therefore used
when an acid condition is necessary.

Soilmaster Michigan peat, another
product of the company, is for use on
acid-loving plants and for mulching
purposes.

AT Tulsa, Okla., the O. K. Gardens
& Nursery Co. recently purchased
nine and one-half acres of land and
constructed a 4½-acre lake on it to be
used for irrigating purposes. The
shore has been planted with grafts
and liners.

PROPOSALS for furnishing nurs-
ery stock F.O.B. Lovelock, Nev., will
be accepted by Robert A. Allen, state
highway engineer, Carson City, until
November 8. The proposal calls for
112 Populus Fremontii, thirty-one
Ulmus pumila, four Ailanthus glandu-
losa and twelve Robinia Pseudoacacia,
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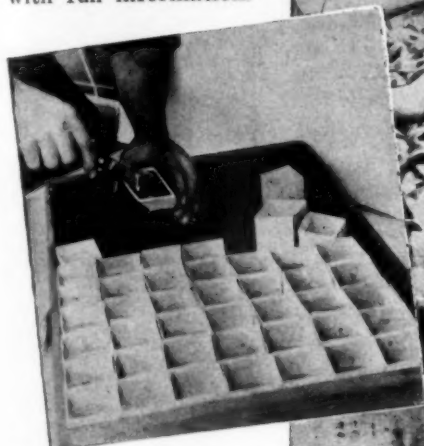
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If not familiar with these, write at once for full set of samples and descriptive circular with full information.



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